THE

WESTERN JOURNAL OF MEDICINE,

(Formerly, "Cincinnati Journal of Medicine.")

Thus it will be seen that if man has passions which impel him to the destruction of man, if he be the only animal who, despising his natural means of attack and defence, has devised new means of destruction, he is also the only animal who has the desire, or the power to relieve the sufferings of his fellow citizens, and in whom the co-existence of reason and benevolence attests a moral as well as an intellectual superiority.—*Graves' Clinical Medicine.*

OCTOBER, 1867.

On Castration as a Remedy in Certain Cases of Hæmatocele.

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N. T., æt. 40, cabinet maker; has never been affected with venereal disease. When eighteen years of age was examined in Germany, by a recruiting officer, and found to have an enlargement on the right side of the scrotum. Previous to this time it had not attracted his attention, having never given rise to trouble or annoyance. Until January last, it had manifested no disposition to increase in size. About the latter part of December he had some bronchial trouble, and on New Year's day there were violent paroxysms of coughing, during one of which he "felt something give way," and noticed a sudden increase in the right side of the scrotum, which caused him so much inconvenience that he remained in bed for two days, making use of hot applications. This treatment caused such a reduction in the size of the scrotum, that he resumed his labor. He continued to work for about a month, when, without any known cause, the scrotum on the right side began again to enlarge, and he was compelled to discontinue his labor. The color of the integuments would at times be reddish, at others dark, and at others blue. He came under

my care about the last of April, and finding, after a careful examination, that there was fluid contained within the scrotum, I resorted to tapping, and drew off nearly three pints of dark fluid blood. In less than twenty-four hours, the scrotum began again to enlarge, and in a few days another large quantity of rather florid-looking blood was taken away, and during the months of May, June and July, tapping was performed no less than six times. He was kept strictly in bed, with his pelvis elevated, and iced water applied to the parts. No treatment seemed to arrest the tendency to the accumulation of blood within the scrotum, and on the 18th of July I made a very free incision, for the purpose of removing the contents of the cyst, or vaginal cavity. The tunica vaginalis was found to be of more than half an inch in thickness, and adherent to it were dense layers of false membrane, which it was difficult, and at many points, impossible to detach. Again, there was a large amount of half organized material, communicating to the finger the sensation of broken encephaloid tissue. Under all the circumstances I decided to excise the testis with the whole mass by which it was surrounded, and the parts resembled, after removal, almost precisely the illustration given by Mr. Curling, at page 211 of the work quoted, of the structures which he himself removed. The testis itself appeared to be sound, although much atrophied by the pressure of the diseased mass by which it was surrounded. This patient made a speedy recovery, and has for some weeks been able to attend to his labors. September 10th, in company with Dr. Muscroft, who assisted me in the operation, I examined him and found him in excellent health. The spermatic cord, however, throughout the length of the inguinal canal, is enlarged, but tender on pressure, and he declared that in all respects he felt as well and as strong as at any period of his life.

The cases hitherto reported, in which it has been deemed necessary to resort to castration for the relief of hæmatocele, have been quite limited in number, but few as they have been, taken in connection with the names of the surgeons in whose practice they have occurred, they are sufficient, in our opinion, to show the propriety and even necessity of the operation. In his *Clinical Report on the Diseases of the Testicle*, by Mr. Thomas Bryant, published in *Guy's Hospital Reports*, Vol. XI. 1865, we find the following case:

"I. S., æt. 52, came under my care on February 26th, 1865, with an enormous tumor on the right side of his scrotum. It had been growing gradually for fifteen years, and had caused little or no pain; it had appeared without any known cause, but for the last six months its increase

had been more rapid, this increase in size having immediately followed an injury he had sustained when at work. The tumor was evidently in the position of the right testicle, globular and semi-fluctuating; it was smooth in outline, except posteriorly, where an apparent outgrowth existed, and felt firm and heavy; it was not painful on manipulation, although pressure posteriorly caused testicular pain. The scrotum was slightly œdematous, and the weight of the tumor caused much pain in the loins. On April 25th, the man being under the influence of chloroform, I cut down upon the growth, exposing the tunica vaginalis. I then tapped the cyst, and drew off a quantity of thick fluid, like pea-soup, containing the elements of broken down blood. The tunica vaginalis was much thickened, and was of cartilaginous hardness, its walls being studded with ossific deposits. The testicle was much enlarged and flattened out, being situated at the posterior part of the tumor, and corresponding to the outgrowth already mentioned. The whole tumor was then excised. The testicle was afterwards found to have been the seat of general tubercular disease. The tunica vaginalis had been enormously distended and thickened, and contained ossific matter in its walls. It seems probable that the original disease had been a hydrocele, and had become a hæmatocele after the injury. The disease of the testicle must be looked upon as accidental."

In alluding to the changes occurring in cases of hæmatocele, when of some standing, he refers to the rapid coagulation of the blood, and the sensation communicated of a solid growth. He adds: "The sac of the hæmatocele, whether tunica vaginalis or cyst, rapidly alters in character, and becomes thick, and in certain cases, fibrous or even cartilaginous, at first from the mechanical coagulation of the fibrine of the blood upon its inner surface, and in cases of longer standing, from distinct inflammatory changes, brought about by the presence of blood acting as foreign matter. In some instances the thickening of the cyst is very great."

While Mr. B. expresses the opinion that in these cases it is generally sufficient, indeed it is the "only sound practice," to make a free incision into the cyst or tunical vaginalis, turn out the semi-solid contents, and allow the interior of the sac to granulate, he adds: "In old cases of hæmatocele, in old men, the practice of excision is the best," and then refers to the case already quoted. Equally emphatic is Mr. Curling in the last (3d) London edition, (1866,) of his well known Treatise on the Diseases of the Testis. At p. 219, after referring to the treatment by incision and removal of the contents of the cyst, he thus remarks:

"When the false membrane is not too firmly consolidated, the detachment and removal of the layers is the right treatment, but in a very large chronic hæmatocele with great consolidation and thickening of the sac, the best operation, especially in persons advanced in life, is the excision of the whole of the mass. The loss of the testicle in such a c[illegible]

of little importance; and the scrotal integuments contract so much from the removal of large tumors, that the wound would not only be comparatively small in size, and much less than if the hæmatocele were incised, but would also heal readily instead of being the seat of protracted suppuration." He then reports the following case, in which the operation was properly performed by Mr. Bowman, of King's College, Hospital, in January 1853:

"A laborer, aged fifty, two years before received a blow on his left testicle, which afterwards gradually enlarged, until it reached the size of a goose's egg. This swelling was also struck accidentally, and from this time rapidly increased to a great size. The tumor was pyriform in shape, firm, tense, opaque, but not at all tender. It reached nearly half way down the thighs. By firm pressure at a spot in the back part, I was able to make out the position of the testicle. Mr. Bowman punctured the swelling with a trocar, and gave issue to about fifty ounces of dark red fluid, which partly coagulated, and contained abundance of red globules. The tumor in a week regained nearly its former size. Having evacuated about a pint of dark brown fluid by puncture, Mr. Bowman excised the whole mass, and after tying numerous vessels, closed the wound with sutures. The patient recovered favorably in about a month. The tunica vaginalis was greatly thickened by extensive layers of fibrine, deposited within the sac. The testicle was sound, but concealed and flattened by fibrinous exudations."

Mr. Druitt, in the 9th London edition, (1865,) of his *Surgeon's Vade Mecum*, p. 671, observes that extirpation is the only remedy in those cases where the tumor is of great magnitude, and in which the testis is wasted by the continued compression, or is so completely involved in the fibrinous layers as to be undistinguishable. In such, he believes, the risk and the sloughing likely to follow the free incision and turning out the clot, is too great. Indeed, Mr. Curling, (p. 219, op. cit.) reports a case in which the patient died in a week after he had made a free incision for the purpose of removing a large quantity of dark grumous blood. The thickening of the sac prevented its collapsing after the incision.

Mr. Erichsen, in the 4th London edition of his *Science and Art of Surgery*, (1864,) under the head of Hæmatocele, thus observes: "If the tumor were of very large size, and the tunica vaginalis much thickened, hardened, and parchment-like, with adherent and laminated fibrine, castration might possibly be required. In the instance to which I have already referred, and which is represented in Fig. 504, this was rendered necessary in consequence of these conditions, and was successfully done." p. 1212.

Mr. Samuel A. Lane, one of the surgeons of St. Mary's Hospital,

London, in the first volume of his edition of *Cooper's Surgical Dictionary*, (8th ed. Lond. 1861,) at page 847, lays down the following rules: "The plan of treatment suitable to a hæmatocele of long standing, differs widely from that which may suffice in recent cases. When the tunica vaginalis becomes thickened to the extent of five or six lines, neither tapping, injecting, nor incision, alone will be of any avail. The diseased tissues are incapable of repair. The layers of false membrane, after incision, must be peeled off from the interior of the tunica vaginalis, and the original membrane only left, or, if this cannot be effected, the entire adventitious structures, together with the tunica vaginalis, should be removed by the scalpel or scissors. . . . Should, however, the adventitious deposit be equally developed on the testis and epididymis, or should these structures have suffered disorganization and atrophy, castration should be performed as the only procedure likely to be effectual."

Nelaton, in his *El mens de Pathologie Chirurgicale*, Vol. V., pp. 644, 645, thus speaks of castration as a remedy for hæmatocele: "If we look at the results of the different operations which have been resorted to in cases of hæmatocele, with thickening of the tunica vaginalis, we shall not be astonished that the majority of surgeons have given the preference to castration. Its advantages as regards rapid execution and a speedy cure without unpleasant consequences, are incontestible. But then there is the loss of a testicle, and the examination of the specimens removed shows that in nearly every case the testis remained sound. We can readily, therefore, understand why practitioners have tried to preserve the organ, but altogether, if we compare the advantages and disadvantages of this attempt, we are forced to the conclusion that in many cases castration is really the operation which should be selected. . . . . However, the process of decortication, recommended by M. Gosselin, should be tried in certain cases. When the patient is young, decortication should be preferred. In such, of course, the hæmatocele can not be very *ancienne*, and consequently the layers of false membrane are not likely to be very adherent to the tunica vaginalis, nor will the latter be much thickened. If the patient is advanced in life, the affection of long standing, there is reason to fear that decortication will not be possible, and that the testis itself is imbedded in the layers of false membrane. . . . Decortication may be tried, and if not found practicable, then resort to castration."

M. Gosselin, one of the surgeons of *l'hôpital de Lourcine*, Paris, published in the *Archives Générales de Medicine*, for September, November and December, 1851, by far the most complete and valuable monograph ever written on the *Epaississement Pseudomembraneux de la Tu-*

nique Vaginale dans l'hydrocele et l'hematocele et sur son Traitment. At page 385, in the December number, he thus refers to castration: "Boyer preferred this operation in those cases where, after incising the tunica vaginalis, its visceral layer was found to be considerably thickened, and the testicle itself enlarged and indurated, but he does not assert that such conditions are of frequent occurrence, nor does he explain why they require the removal of that organ. M. P. Boyer, in the notes which he has appended to this article, (p. 753,) declares himself an advocate for incision in ordinary cases, but prefers castration when the tumor is very large and encloses the testicle, but he does not furnish us with very precise ideas in reference to the latter indication. Castration is not so formally indicated in other treatises; I know, however, that it is performed by some surgeons of merit. I have learned that A. Berard regarded it as the preferable proceeding, having been witness to some of the unfortunate results of other methods reported in M. Cloquet's thesis. M. Denonvilliers, whose opinions I so greatly respect, has recently informed me that he prefers castration, as it is an operation of less gravity than any of those yet proposed. The little hazard connected with castration is undeniable, as is also the rapidity of the healing of the wound. In these respects it is much superior to the simple incision, excision, and the seton; but it compels the patient to submit to a painful sacrifice. To this it can not be said that the testis is in a bad condition, and its functions destroyed, for as we have already shown, such is not always the case, and patients would uniformly prefer to save the testis, if possible, even though its functions might be impaired."

The late Dr. J. Mason Warren, in his *Surgical Observations*, recently published, pp. 252, 253, reports two cases of hæmatocele, in which he made a mistake in diagnosis, and believing the testis the seat of disease, performed castration. He remarks: "Although there was a mistake in the diagnosis, the operation performed was the best for the patient, as the process of granulation in so thickened a sac, must necessarily have been very tardy, and the testicle was no longer of any efficiency."

Mr. G. M. Humphry, who wrote the article on the *Diseases of the Male Organs of Generation*, published in Holmes' *System of Surgery*, at page 566, Vol. IV., in referring to the treatment by incision and turning out the clots, thus observes: "This proceeding is not unattended with danger, and, if the patient be advanced in life, it is safer to remove the entire mass with the testicle."

Prior to 1834, Velpeau informs us (*Operative Surgery*, edited by Mott and Blackman, Vol. III. p. 415,) that he had twice performed castration

in cases of hæmatocele, although he had reason to believe that the testicle was free from disease. But he adds, after referring to similar operations by Roux, Sornay and Voisin: "At the present time, however, it is requisite that this practice should undergo a reformation on this point. Hæmatocele requires neither excision of the tunica vaginalis, nor extirpation of the testicle. I have treated and cured a great number of patients with this disease, by either one of the two following operations, (injection and incision,) and which are the only ones I have employed since the year 1834, whatever may have been the degree of thickening or induration of the tunica vaginalis." He states that he had treated by incision fourteen or fifteen patients, and all of them were cured; the majority of them in from three to six weeks. He admits, however, that in one case the wound did not close up until at the end of two months, and that another patient died. He adds, that in this the hæmatocele which occupied the testicle itself, was situated in an encephaloid mass, and not in the tunica vaginalis, properly so called. May not this encephaloid appearance have been due to the changes occasioned by the pressure of the accumulated blood, as in the two cases reported by Sir Benjamin Brodie, in the *London Medical Gazette*, 1832–'32, p. 927: Sir Benjamin found a very large quantity of grumous blood in the tunica vaginalis, while at the back part a soft pulpy mass was seen, "not at all resembling the testicle in structure, and only recognisable as such by its connection with the epididymis and vas deferens." In advocating the treatment by incision so strongly, Velpeau seems to have forgotten that long ago Percival Pott had furnished us with the proof that the operation by incision is occasionally followed by great constitutional disturbance and even death. (*Vide* Pott's Chir. Works, Vol. II.) Again, we may appeal to the testimony of his own countrymen, that both of his favorite methods have been followed by serious and even fatal results. M. Gosselin, in the admirable monograph to which we have already referred, p. 307, notices the fatal results of incision which occurred in the practice of A. Berard and Nelaton. He cites the case thus treated by Blandin, in 1843, in which the most violent symptoms followed; the testis was destroyed by gangrene, and the patient, having narrowly escaped death, recovered at length after most protracted suffering. Indeed, after a careful study of M. Gosselin's whole paper, and an unprejudiced examination of all that has been written in favor of his own process of decortication, we are fully persuaded that in cases of hæmatocele of large size and of long standing, with a greatly thickened and disorganized condition of the parts, castration is by far the safest, and in every respect the best operation. As M. Gosselin has himself observed,

this morbid condition of the tunica vaginalis, favors the development of inflammation and unhealthy action after interference by any of the methods proposed, and hence we maintain that as these diseased surfaces are removed, in a great measure, by castration, so are the patient's chances for complete cure thereby increased, and a favorable result rendered almost certain.

Aneurism of the Brachial Artery cured by Ligature on its Cardiac Side; followed by Circumscribed False Aneurism, cured by Ligature of the Axillary Artery. By L. D. WATERMAN, M. D., Indianapolis, Ind.

I am induced to report the following case of Aneurism of the Brachial Artery, from the fact that several writers, among them Powers in his *Anatomy of the Arteries*, state that this disease is very rare.

Jacob Hub, a German butcher, aged 32 years, with an unhealthy putty-like complexion, came to me in May 1857, with a tumor as large as a small hen-egg, on the middle of the left brachial artery. It was increasing steadily, was somewhat pointed and near the surface at its apex, visibly pulsating, and could be emptied by pressure with the finger. It filled rapidly from the cardiac, slowly from the distal side. He had insufficiency of the semilunar valves, with great consequent hypertrophy of the left ventricle of the heart. Violent pulsation of all the superficial arteries was visible to the eye.

I ligated the artery without chloroform, (on the cardiac side of the aneurism,) in its upper third, to avoid the diseased portion of the vessel. The aneurism shrunk to a small hard lump without pulsation. The ligature, having probably been tied too loosely, did not come away as soon as usual. The incision healed, except the outlet of the thread, by the twentieth day.

On the sixteenth day after the operation, with the ligature still hanging to the artery, he attempted to butcher a calf; and a few days later called my attention to a rapidly-growing pulsating tumor of the artery just above the ligature. I advised ligation of the axillary artery; but having been told by a homœopathic physician that the disease could be cured by medicine he put himself under that treatment.

Two weeks subsequently I was hurriedly called to him; "he was bleeding to death." I found him prostrate with loss of blood—the false aneurism having burst while he was walking the house. With the assistance of Dr. M. R. Wickersham, of Mankato, Minn., I tied the axillary artery

in its lower third, without chloroform none being at hand. The ligature came away at the proper time, (the other ligature was removed at the time of the second operation,) and the artery between the two ligatures, as well as the original aneurism, was obliterated. I learn from Dr. Wickersham, that the man died of dropsy about six months after his recovery from these aneurisms and operations.

A Materies Morbi not necessary to the Causation of Disease. By S. LITTELL, Philadelphia, Penn.

The almost universal acceptation of the doctrine of a *materies morbi* as a necessary cause of disease, has given a wrong direction to thought and investigation, and has made the theory of medicine a medley of unsatisfactory, and often contradictory hypotheses. It has taught us to look *without* rather than *within;* filled the mind with myths of its own creation, and while the fears of contagion which it has often unnecessarily excited, have had an injurious influence upon the sick, has led to the adoption of supposed preventive measures, involving great expense and inconvenience, both public and private. Can we not find in the constitution and operations of the animal economy itself, a simpler, more obvious, and more intelligible rationale of many of the phenomena which we daily witness? To my mind the interrogatory admits only of an affirmative response. If we assume the brain to be the governing organ, it will be apparent that the capability of resisting noxious impressions will be greatest when its organization is most perfect, and its action most vigorous. But as all do not enjoy this happy condition of things, and as in those who do, the cerebral functions are not at all times performed with equal vigor, there will be a large number of persons, of every age, constantly prone to disease. Moreover, the want of due innervation may lead to as great a diversity in the expression of morbid action as there are tissues to be acted upon; and as any one of these is seldom affected alone, the combinations will be almost endless. We are not necessarily compelled, therefore, to look beyond the system itself for a multiplicity of causes in order to account for the many varieties of disease which we see. A single agency may produce results as general as its influence, and as various as the existing predispositions. If this agency should be itself analogous to, not to say identical with, the nervous force; if it should bear such a relation thereto, that changes in the one produce corresponding changes in the

other; if, furthermore, it should be in a state of constant fluctuation, its diminution depressing and its increase exciting vitality; and if its action on the animal economy should be affected by various meteorological conditions, as heat, cold, dryness and moisture; it will be seen at once that we have a power adequate to the causation of a host of diseases: more especially if we take into consideration the predispositions induced by countless circumstances affecting individuals alone, or involving whole communities. Now electricity is an element which possesses these characteristics; and variations of electrical tension, or fluctuations in the quantity of the electrical fluid contained in the atmosphere, elevating or depressing the action of the brain, according as it is in excess or otherwise, will afford a satisfactory solution of much which has been attributed to malaria and other imaginary poisons. I say *imaginary*, because we have absolutely no proof of their existence, and their supposed effects are susceptible of a more rational explanation. The frequent occurrence of intermittent and remittent fevers in localities where there is no vegetable matter, and where therefore there can not possibly be any decomposition, and the complete exemption of other districts in which every circumstance of climate, soil and atmosphere, conspire to generate paludal exhalation on a large scale, have induced some late writers to abandon the theory of marsh *miasmata*, and a materies morbi being supposed to be absolutely necessary—to recognize instead a more general and comprehensive, but equally mythical and undefinable quality, which they call *malaria*; thus substituting words for things, and deluding themselves with the semblance of knowledge which they do not possess. The product of vegetable decomposition, whether called miasmata or malaria, if really noxious in any considerable degree, is much less so than is commonly imagined. The fevers to which it is supposed to give rise, are less prevalent when such decomposition is greatest, and are notoriously produced by other causes. A remarkable illustration of this is related by Mr. Eastwick, in his *Journal of a Diplomatic Residence in Persia*. He was informed that Suram, a village of Georgia, was very unhealthy, and that of three thousand soldiers employed on the roads the year previous to his arrival, one thousand were constantly ill of fever. The sickness was attributed to the prevalence of a cold wind in conjunction with an intensely hot sun. The men threw off their clothes, and were immediately prostrated by fever. A similar instance which comes under my notice as I write, is recorded by Viscount Pollington, in his recently published narrative of a tour "*Half Round the Old World*," and, curiously enough, the habitat is nearly the same;—Bot'i:k in Circassia being situated immediate-

ly north of Georgia. The cause of the sickness was probably alike in both cases, and the resultant fever was the consequence of the sudden abstraction of vital heat, or electricity from the system. "In the middle of the day we arrived at Botlick, the chosen home of fever, though why—it would be difficult to conjecture. It lies in an exactly similar situation to our morning's starting point, which is entirely exempt from this disease, between rocky hills at the bottom of a valley, and has as many or more walnut and other fruit trees, growing around it. The vines are most beautiful, festooning tall apple trees to their very tops.

"We had started early, intending to pass this place without stopping, but we were told that the time of fever was just over by a week; so, finding agreeable quarters in the officer's house, we remained. The sun was certainly very hot in the middle of the day. * * * The time of fever here is June, July and August. It attacks to a certainty any person who remains three days here."

The endemic fevers of this country occur at a somewhat later period. The heat of the summer has been succeeded by the cool weather of autumn, and the system, exhausted by the undue stimulus of the caloric, now withdrawn or greatly lessened, is in a state of debility, and fitted therefore, to become a ready prey to disease. In such circumstances the brain can do little more than supply the ordinary demand. There is no vital heat or electricity to spare for any unusual emergency; such as its rapid abstraction through fatigue or from imprudent exposure in the early morning and evening, when the air, charged with moisture from the ascending and descending dew, has become—*what it was not before*—an active conducting medium. The immediate consequence of such exhaustion or exposure, is usually a chill, induced by congestion of the vessels connected with the Portal Circle; this is followed by reaction and other symptoms of fever, by which the equilibrium is temporarily restored; the type being remittent, quotidian, tertain, quartan, etc., according to the strength of the impression, and the constitution of the individual. There is no mystery or difficulty on this hypothesis, in accounting either for the periodicity of the disease, or the influence of tonics in preventing its recurrence. The febrile movement, which is an effort of the vis medicatrix—itself a cause of ultimate exhaustion—imparts an unnatural impulse to the brain, which suffices to maintain its action for a time; as this impulse lessens, its vigor diminishes, until the stimulus afforded by a renewal of the paroxysm, again becomes necessary to sustain the vital functions. In like manner the temporary exaltation of cerebral action produced by tonics, prevents the recurrence of the vicious circle of morbid action until

the brain recovers its accustomed energy, and is able, unassisted, to furnish the sensorial power which is required for that purpose; or, losing ground, the paroxysm becomes anticipating, intermission glides into remission, and matters proceed from bad to worse until the case often terminates fatally. At a later period of the year, under the invigorating influence of a greater degree of cold, and the breathing of an increased amount of oxygen, the predisposition changes to a different class of diseases, and instead of the so-called malarious fevers, we have the Exanthemata, Phlegmasiæ, etc., etc.

If it be asked what advantages this hypothesis possesses over the malarial and specific theories so generally adopted, and so firmly believed; I reply that it is not only more simple, and more in accordance with the nature of things, but that it also leads directly to important practical results. It is well known that—due attention being given to the removal of congestive determinations—tonics generally, and the sulphate of quinia in particular, are our most efficient remedial measures in the treatment of such fevers. Any thing which produces a strong impression on the system, will often have the same effect. These are agencies, it may be observed, in passing, which neither neutralize nor eliminate poison; their only action is on the brain, and consists in a temporary increase of nervous power. What therefore can thus be cured, it is reasonable to suppose, may likewise be prevented. *Occurrite morbi!* Let means be taken before the intervention of actual disease, to support the impaired energies of the system; let the people be instructed to avoid as far as practicable all excessive fatigue at this juncture, as well as all unnecessary exposure to the air of early evening and morning, when the atmosphere is saturated with dew, together with whatever else may debilitate and depress; and intermittent and remittent fevers, now so prevalent in some parts of our country during the early autumnal months, will become much less frequent.

In a late expedition up the Niger, a river so fatal to former explorers, the health of the crew was preserved in a remarkable degree by the exhibition of a few grains of quinia twice a day, with other hygienic precautions; and domestic medicines less effective, are often employed by the common sense of mankind, for the same purpose, and with like effect. I would recommend, as in the instance mentioned, the general prescription during the latter part of August and throughout September, of three or four grains of quinia, morning and evening, in full confidence of its beneficial prophylactic influence. Other precautions,—a change to clothing of non-conducting property, and the avoidance of the burning rays of

the mid-day sun,* might also be added to those mentioned above, as conducive to the same end.

The preceding remarks have been made with particular reference to what are called malarial fevers, or rather, these have been adduced in illustration of the *modus operandi* of the cause which I have suggested; but they are equally applicable to all epidemical diseases, and also to many others. Variations of electrical tension—regard being had to the existing debility and predisposition—will afford a satisfactory etiology, without invoking the interposition of a materies morbi, in the shape of miasms, and blood-poisons, as numerous and as varied as the different forms of morbid action.

A Case of Gonorrhœal Rheumatism, with Treatment. By WAYNE GRISWOLD, M. D., Circleville, Ohio.

Called to see Mrs. ——, February 18th, 1867. She lives in the country, is a farmer's wife, had generally been healthy, strumous taint in constitution. Age 40 years, light complexion, light colored hair, blue eyes, and tolerably fleshy. When her husband came for me, he told me his wife was very sick with rheumatism; had been bad for two weeks. I also found she had been under the care of a quack.

I found her in bed, unable to move, with the right knee extensively swelled; very tender to the touch; moaning with excruciating pains; increased heat, but no redness of the skin. Could not move the limb; the knee was large and white, but intensely tender and painful, resembling in appearance more an indolent white swelling, than rheumatism.

The pulse was one hundred, and irritable; tongue white; bowels had been moved; water high colored, containing an excess of lithates, some pain and burning on passage of water. Upon inquiry I found there was some vaginal discharge. At first I could not satisfy my mind what ailed this woman. There were severe inflammation, great swelling of the knee, presenting all the local phenomena of rheumatism except the redness of the skin, and the unusual fullness and roundness of the joint, more so than are generally found in rheumatism. The pain, tenderness, increased heat,

* The momentary shudder which is sometimes felt on going into the sunshine, in warm weather, is caused by the escape or radiation of vital electricity, owing to its affinity with the solar heat; and relapses in intermittent fever are often attributed by the people of the country, to imprudent exposure to the rays of the sun.

swelling and redness of the skin, which characterize rheumatism were all present except the redness. Any attempt to move the limb, or the slightest pressure was extremely painful.

She had been growing daily worse for two weeks. I reflected some time upon the case before I could make out a diagnosis. Here was an elegant farmer's wife. in easy circumstances, living ten miles from town. Could she have gonorrhœal rheumatism? I know "this is a sad wicked world."

After many inquiries, I told her she had not given me all the particulars of her case. She said I had better call her husband in, that he could explain the matter better, which I did. He informed me that some six weeks before he had been East with a drove, and had returned with a gonorrhœa, and probably had given it to his wife. This information filled up all deficiencies in the case. The diagnosis was full, complete and plain.

In an extensive practice for many years, I have met with but few cases of gonorrhœal rheumatism, and the great interest in this case to me was the diagnosis.

The line of distinction between gonorrhœal rheumatism and ordinary inflammatory rheumatism, is often difficult, and many of our best authors are not clear upon the diagnosis. Swediaur, who was, perhaps, the first to recognize the cause of this disease, in his description of the gonorrhœal tumor of the knee, or gonocele as he called it, gives a fine description of this disease. Chambers, in the great variety of cases he gives, fails to make the diagnosis clear to the medical student, and in one of his most interesting cases acknowledges that he mistook the nature of the disease for several weeks.

Hunter did not even recognize the disease, but Ricord fills up the chasm and gives a clear and full description, better, perhaps, for the student of medicine, than any other author. Some of our American authors say little or nothing about this disease. Even Flint, one of the latest and best, passes it over with a few lines. He says it is one of the instances in which the term rheumatism has been misapplied. He would seem to agree with Barwell and others, who call the disease pyarthrosis, dependent on purulent infection of the blood. He ought to know, from his extensive field of observation, but I can not see it; for this disease is certainly different from any cases of pyæmia I have ever met.

There was another point of some interest in this case. The gonorrhœal discharge still continued, although the inflammation of the knee had progressed for two weeks.

Some writers tell us that the gonorrhœal discharge ceases before there is any swelling of the joints.

Treatment. One of the following powders was given every four hours for two days:

R. Potassa Nitras - - - - - - - gr. cxx.
Hydrarg. Cum Creta - - - - - gr. xxiv.
Morphiæ Sulph. - - - - - - - gr. ii.
Ft. pulv. No xii.

After which the powders were continued every six hours, leaving out the Hydrarg. Cum Creta, with the following in teaspoonful doses between the powders:

R. Potass. Iod. - - - - - - - - gr. clxxx.
Aquæ Puræ, - - - - - - - - - oz. iii.

Local Treatment. Large blisters to the knee, first below from the center down and around the limb, then above. These were kept sore by the use of the calomel and iodine ointment. This treatment was continued for five weeks with slight variations. The vaginal discharge was let alone, except the use of soap with injections.

After the reduction of all active inflammation, and the cessation of all pain, and much of the tenderness, the knee was painted daily with the following compound:

R. Collodion, - - - - - - - - - oz i.
Iodine, - - - - - - - - - gr. xxx.
M.

By the evaporation of the mixture a perfect cap was formed over the entire joint, pressing equally upon all parts, and it also contained one of the best sorbefacients we have. Over this a bandage was applied to aid in constant pressure over the knee. Under this treatment the effusion was rapidly absorbed.

The general treatment was also changed at the same time to the Syr. Fer. Iod. and Cod Liver Oil.

During all the treatment, I generally gave a free dose of quinia about 5 o'clock, A. M. I seldom treat any severe or obstinate disease that I do not give one or more doses of quinia early in the morning, at the time when the vital forces are at the lowest point. And we have no medicine or stimulant that acts so directly upon the nerve centers, creating nerve force, not only upon the nerves of sensation and volition, but upon the nerves of organic life.

After the reduction of most of the swelling, narrow strips of blister plaster were applied around the joint for some time, to reduce the thickening of ligaments and tendinous portions of muscular attachments around the knee, at the same time using gentle motion.

An injection of zinc sulph. checked the vaginal discharge. It had nearly ceased before.

This was the general course of treatment persevered in up to May 12, when the case was dismissed. She being able to move about with a staff, felt quite well, had gained several pounds of flesh during the last month, could extend the limb within a few degrees of straight, and flex it so as to walk comfortably. The effusion was entirely gone, yet there remained some thickness of the ligaments of the joint, with a good prospect of entire use of the joint.

Oblique Fracture of the Femur—Necrosis of the entire Shaft, arising from Coxalgia. Improved Method of Treatment. By R. E. HAUGHTON, M. D.

W. Brown, age 17, farmer, in walking on level ground, broke his left femur, in an oblique direction, which threw him to the ground. He was picked up, and carried to the house, and laid upon the bed. I was sent for to visit him, living in Ohio, five miles from the city of Richmond. It was the 17th of June, 1866, ten o'clock at night when I arrived, and examined his condition, and heard the following history of his life. At about eighteen months of age, while yet in his cradle, he had a swelling about his left hip, with pain, and after considerable suffering, suppuration occurred, and discharged itself through the tissues just below the hip, and near the fissure running across the back of the thigh below the gluteus maximus muscle. He remained more or less helpless for a long time, but finally he partially recovered, with anchylosis of the hip joint, and shortening of the limb to the extent of three full inches. When in this condition, he began to go about, and walked with the toes and ball of the foot resting upon the ground, the heel drawn up with all appearances which belong to old cases of coxalgia. From this early age till the occurrence of the fracture—the occasion of my visit to him—there had always been some discharge going on, and at various points of the limb. I counted five or more points which had, at various times, been open and discharging pus. At the time I saw him, there were two openings, one external, and two inches above the knee, the other about the middle of

the thigh. The matter was pus, and upon microscopical examination. contained the evidences of bone tissue, and pieces of bone, with pus cells. I examined the shaft of the bone from the various points of opening, and found the bone at various points denuded of periosteum, and the whole shaft, at least from the trochanter major to the condyles, involved in disease, and the microscope revealed a rapid destruction of the bone. His general health had been good up to the period of fracture, so much so that he ploughed corn every day. Here was a fracture, very oblique, in this condition of bone, and *it* diseased, for about 15 years more or less. At this time there seemed to be no active disease about the joint, as the opening which had discharged matter was healed up, and no pain or soreness existed. The fracture occurred at about the junction of the upper and middle third. It was in the night, and I had him placed in the most comfortable position, and gave him an opiate, and determined to wait till morning before proceeding to treat further the case. With all the conditions present, I thought it very uncertain, if it was adjusted, that any union would occur. Besides, it was in the month of June, and I knew if it did any good, it would require weeks upon his back, with the heat of summer, the constant discharge, and confinement in one position, must tell upon his health very unfavorably. By the morning, however, I had determined what I should do, and how I should do it. I then told the boy's father the dangers and risks of failure to get union, and if so, the results of failure.

He supposed, being quite intelligent, and knowing well the history of the case, that I would propose amputation of the limb. I said not *now*, but if we should fail to get any union of bone, then amputation would be our last effort. I told him then that I would treat it as I would treat any other fracture, hoping to secure a substantial and reliable union, though it seemed as though there was nothing to justify such a result. But, acting upon the presumption that nature cures, and that my duty was to aid her—and that the conservative idea was the true one, as to the limb—I determined not to sacrifice it unless I was forced to do so.

Treatment. I procured a fracture bed, with pulleys arranged so that we could raise or lower the body at any time, placed upon it a smooth straw mattrass with a sheet over it, and a stretcher above it, so arranged that one turn of the windlass at the head of the bed, would raise the patient clear of his bed. The pulleys, with cords passing over them, were attached to each side of the stretcher, which was kept upon the stretch all the time, by the posts of the bed, so that he was raised very easily and smoothly. I then attached adhesive strips as high as a little above the knee joint, on each

side of the limb, and meeting just below the foot, preventing pressure upon the malleolar processes by inserting a light piece of wood, excavated at each end, and placed between the straps as they passed beyond the foot. An upright piece of wood, with a pulley attached to the foot of the bed, and passing over the pulley a strong cord, which is attached to the loop below the foot, and below to a weight of from six to ten or fifteen pounds. This was the mode of extension, and admirably did it effect the object, as it always kept up a regular and continuous extension. After adjusting the adhesive strips, I bandaged the limb neatly from the toes up to the first point of discharge above the knee. I allowed his body to act as the counter-extending weight, by raising the foot of the bed some four or six inches. Instead of using any bandaging or dressing above the knee, I allowed it to remain open and exposed, that the discharges might be removed and the limb kept clean, and for the purpose of observation. As splints, or to subserve the purpose of splints, I used sand bags on each side of the thigh, in its whole length, and by this method he was rendered perfectly comfortable, and suffered less pain at all times, than in cases of ordinary fracture. During the second week increased suppuration from the bone at the point of fracture, and a new opening was made to evacuate it. So we went on; the same thing occurring at the old opening below the hip, until it seemed the whole limb was a mass of matter. Rapid and early evacuation, however, remedied this difficulty, and at the end of six weeks, the ordinary time for healthy bone to be united, we seemed to have made no progress. Yet his appetite was good, and never complaining or repining. Upon a careful review of the case in connection with other physicians, it seemed as if amputation at the hip joint would be the final alternative. I still determined I would not operate while there was any chance to save his limb, and yet not jeopardize his life by waiting too long. Same treatment continued; good diet, with tinc. chlo. ferri. He commenced improving; suppuration diminished; pain, or rather soreness subsided; two openings closed up; three open. Watery discharge going on; some apparent solidity to bone. Eighth week; improving more decidedly; appetite better, though he never lost a meal. Improvement steady; more solidity of bone. Improving in flesh; has more color and strength. He continued to improve steadily till the thirteenth week was ended. No bed sores—a slight excoriation in one place on the sacrum, from some neglect of his nursing—well in a few days. After this applied a starch bandage the entire length of limb, and when dry gave him a pair of crutches, and got him up. He continued to wear the starch bandage for some weeks, and going on his crutches. He made a perfect recovery,

so far as union of the fracture was concerned, seemingly as good as any other bone. No additional shortening of the limb above what had been in existence for years. The openings of discharge closed up, and he is now in the enjoyment of better health than at any previous time in his life. He is arranging a steel extension or foot piece to his shoe or boot, and will be able to walk very well, by its aid in the length of the limb. The shortening had occurred in his early life from the destruction of the head and neck of the femur, and retraction upwards of the limb. The mode of treatment was extemporized by me at the time, though not new to me, I had never seen it used in cases of fracture, though I recollected, that in reading Hamilton's work on *Military Surgery*, he recommends it in gun-shot fractures, and illustrates the plan by plates. And here I would refer to an article in the *Lancet and Observer*, of Cincinnati, Ohio, for May 1866, taken from the (*Buffalo Med. and Surg. Rep.*) entitled "Description of an Improved Extension Apparatus for the Treatment of Fracture of the Thigh. Introduced by Gurdon Buck, M. D., Surgeon to the New York Hospital, St. Luke's Hospital, etc." Introduced to whom, or into what? If introduced to the profession, it knew of it and had used it quite extensively during the late war, and had been fully described by Prof. Hamilton. If introduced into the hospitals mentioned, as a recognized method, and one possessing many advantages over the many methods by splints, then it is all perfectly legitimate. But we are left to infer that it is an improved method by Dr. Buck, and the more so from the particular description given of it in the article referred to. I used the extension by adhesive strips, and pulley and weight, and counter-extension by the body, which are the essential points of the treatment, together with sand bags instead of splints and bandages. Again, in the use of the starch bandage which was put on smoothly, and entirely investing the limb. When dry, I cut flaps or openings opposite the points of discharge, and turned them back, for the purpose of removing the discharge and cleansing the skin. To prevent the matter from getting inside of the starch bandage, and thereby excoriating the skin, I used small pieces of velvet sponge, applied upon such opening, and closed the flap in the bandage, and retained them in good position by a roller bandage applied over the starch bandage—which was very readily removed and re-applied by the nurses—and thus the limb was kept clean, and the "apparatus immobile" thus kept applied till the bone was entirely restored at the fracture. The article in the *Buffalo Reporter* says "In the employment of this method of treatment, experience has shown that in a large majority of cases, the use of the perineal band may be dis-

pensed with, the weight of the body being sufficient to resist the extending force," *or to make sufficient counter-extension.* "The resistance may be further increased by raising the foot of the bed five or six inches above the floor." This article does not mention sand bags to support the sides of the limb, yet it is taught in Hamilton's description of this method. I used them in my case with great advantage over splints, which I could not have used, for the various reasons mentioned as conditions of the limb. One advantage of this method of treatment is, that it is easily supplied and often in a few minutes, and in almost any locality. If it is desirable to use a splint, the one invented by Dr. John T. Hodgen, Surgeon of Volunteers, in charge of City General Hospital at St. Louis, and endorsed by Hamilton, is the best I have seen, and combines the same extension by weight and pulley. But where there is compound fracture, or disease of bone, with consequent discharges, the sand bags I believe are all that is necessary to guard and protect the limb, answering all the purposes of splints when used with the weight extension. I am also inclined to believe that the shortening so often found to exist, after treatment by the other modes of extension adopted in splints, may, by this method be entirely prevented. It is the opinion of many surgeons that some shortening of the limb, after the best treatment, is the common rule. If so, it is an opprobrium of surgery which I hope to see removed. It is now about fourteen months since my patient received his injury, and about ten months since entire and perfect union of bone has occurred. The fracture was produced by his weight upon a bone necrosed so that it gave way by the effort in walking. The practical teaching of the case is, Never be in a *hurry* to amputate a limb for any condition of bone which might seem to require it, as recovery may eventually occur.

"In truth there are Brothers who will brag of the many they have dismembered, but they that truly understand Amputation and their trade, well know how villainous a thing it is to glory in such a work, it being more for your credit to save one member, than to cut off many."—*Richard Wiseman's Sixth Chirurgical Treatise.*

"Cut off,
Unshriven, unanointed, unannealed:—
If thou has nature in thee, bear it not."
(*Complaint of the Ghost in Hamlet.*)

Superstitions in Medicine, with Suggestions relating to Mineral and Vegetable Remedies. By ORPHEUS EVERTS, M. D., Michigan City, Ind.

Truth in the abstract is essentially spiritual, and is manifested primarily to man in the spiritual form of ideas. It is received upon the plane of understanding, and ultimated into consciousness by passing into the externals of memory, where it becomes subject to ratiocination.

Through the extremes of man's constitution he is related, consciously, to the realm of principles which we may call the spiritual world, (disclaiming anything beyond a scientific significance in our use of the term), and to the realm of appearances, which we may call the natural world.

Through these extremes of his relations man receives impressions of truth; from one extremity through the medium of the senses; from the other through that invisible, super-sensuous, yet undeniable connection of that which is created and *sustained* with that from which it is derived and continues to receive sustenance.

The reception of impressions through the senses constitutes observation. The reception of impressions through this spiritual umbilical cord, constitutes intuition.

Truths received through the senses, coördinated by the faculty of Reason, constitute inductive science. Truths received as intuitions, subjected to a similar process, constitute intellectual science.

Truth in the abstract is a unit, but in appearances is diversified. Diversity in appearances depends upon the receptive state of the understanding upon which truth falls, and the conditions of the organization through which it is ultimated into the externals of memory, or manifestation.

In a state of ignorance, truth, so far as apprehended, is ultimated into consciousness as superstition. In a more cultivated state of the understanding, under the refining influences of education and civilized habits, which affect the organization correspondingly, the same truth assumes the appearance of science.

In a still higher, yet possible development of understanding and organization, that which was science becomes knowledge. Intuitions of truth which are common to all races, ages and conditions of men, may be regarded as organic sentiments, and essential to man's well being, no matter what the special manifestation (corresponding to different states of understanding and cultivation), may be. These organic sentiments must be regarded as indicative of the highest and most important truth respecting man; because, however assailed by the testimony of the senses,

manipulated by reason, which is as potent, flexible, ingenious, versatile and persistent in confirming error as it is in establishing truth, they remain unmoved, ineradicable.

Among these we may mention the organic sentiments of God, of immortality, of super-sensuous influences affecting man: but that which is more interesting in this connection, is the organic sentiment of cure; *ergo* "the Doctor."

As the organic sentiment of God manifests itself in the various phases of superstition, familiar to the world, so the organic sentiment of cure, equally as universal, manifests itself in superstitious ideas, embracing all the various methods and pretentions of cure, short of science.

With the great majority of mankind, even in civilized communities, the understanding of men, so far as this intuition of cure is concerned, has been neglected; hence the relation of cure to disease, hence of the doctor to the performance of his functions, remains a superstition.

It does not reach even into the higher planes of science as perceived by multitudes of practitioners. Yet there is no evidence so substantial in favor of the fact of cure through external agencies; in favor of *the Doctor* as an indispensable functionary in all communities as this sentiment.

Often the subject of witticism, or of intellectual sneers from the learned of other professions, we hear now a frequent condemnation of the profession; and not infrequently the assertion, sometimes from high sources, that the human race would profit by ignoring medicine and all its pretentions. And, had not the profession of medicine a foundation deeper and surer than superficial intellectual perception accords to it, although it be a foundation which thus far has not transcended superstition in its general manifestation, we should be compelled to admit the plausibility of this judgment. For when we embrace the entire range of the profession, including the administration of all external agencies with a view to cure—all the quackeries of this and preceding ages—and consider the vast amount of nauseous, poisonous, crude, illy selected, worse prepared, and ignorantly administered drugs in the light of advanced science, how can we fail to join in the affirmation? Does not the practice of our most scientific men to-day condemn, as injurious, dangerous, much of the practice of our most scientific predecessors?

Observe the modern commentaries, increasing monthly, on the use and merits of that once most famous of all remedies, Calomel! An aphorism of a Professor of Practice, in my student-days, was: "So far, gentlemen, as you may have pushed the lancet, thus far will you have con-

quered the disease!" The profession of to-day would add, "and your patient, also." Yet these doctors of the "olden-time" were as popular as we are. They performed their duties to society as faithfully, and were held in as high esteem for wisdom and success!

What may we infer from these facts and considerations? That, because the relation of the diseased to the cure, or of the people to the doctor, is to so great an extent a matter of superstition; and because every step in advance, made by science towards knowledge, condemns that which it leaves behind, we should therefore sneer at all medical pretentions? By no means. But, rather, this: "The Doctor," and all that we desire to signify by the term is a response to the sentiment of cure in man's nature, and is essential to man's happiness on whatever plane of perception he may be living.

That this organic sentiment may, and should participate in the general cultivation of the understanding; but, thus far in the progress of civilization, it has been neglected to a great extent; so that men and communities, well advanced in intellectual culture, and general science, are still immersed in a flood of superstition in their relation to medicine. It is a matter of every-days observation, that men otherwise well informed, who would spurn the idea of going to the barbarous Dakotas, or the savage Sioux, for wisdom or skill in matters pertaining to religion, politics or any of the arts of life, will swallow without hesitation unknown nostrums if administered by a pretender who claims to have obtained the secret from some mysterious Ojibwa, with the assurance that it is "purely vegetable," having no other possible recommendation to their confidence.

So, too, it is a common occurrence that men who, while in health, from their intellectual perceptions of the fallacies and apparent inconsistencies of medical pretentions reject the profession with supercilious contempt; yet when seized by pangs of disease yield to the re-assertion of the organic sentiment of cure, and manifest it in its most superstitious features.

But may we not, also, infer from all the testimony (not herein discussed) that any system or practice of medicine, from the incantations of the painted savage "Medicine Man" of the aborigines to the administration of our most learned and conscientious Professors of Medicine, each being a response to the needs of this organic sentiment of cure manifested through the various phases of its development, *is better than none!*

Who can estimate the part which this sentiment itself may perform in the process of cure, in conjunction with, or in defiance of the various agents introduced from without, in answer to its call?

But correlated with this general medical superstition which demands,

and will not dispense with doctors and medicines, are some well marked special superstitions respecting disease and cure. If it be true that there are, or even may be reflections of truth from an ignorant understanding through the medium of uneducated faculties, they should arrest our attention, and be treated with at least the consideration of inspection.

Among these special superstitions there is none more widely diffused or that has taken a deeper root in the popular mind, than that which affirms the superiority of vegetable over mineral agents as medicinal remedies. This is not a matter of education, as has been suggested. Quacks do not educate the people: they are themselves ignorant, but sufficiently intelligent to recognize the language of their kind, and shrewd enough to take advantage of information thus gained, by which they may bring themselves into repute; harmonizing with, and catering to the needs of a popular superstition.

It is in vain that science assures this superstition of the fact that Nux Vomica, Opium, Aconite, Veratrum, etc., are as poisonous and deadly as are Mercury, Arsenic, Antimony, Copper and Lead. A knowledge of this fact does not affect the perception of ignorance on this subject in the least. And why? Because it is not in the specific power of these agents, as compared one with another, that the mystery of merit lies; but in something else which ignorance fails to explain, and which science, sometimes supercilious, declines to investigate below the surface.

The question with us should be, may not this truth, when reflected from a more cultivated plane of perception, appear as science? Is not the scientific world at this hour gradually approximating an affirmation of this heretofore superstitious assertion? What has banished antimony, questioned Mercury, and turned away from Lead, in these later days? It may be somewhat difficult for the profession to give a satisfactory answer to itself.

It would not do to acknowledge that science has been imperceptibly or forcibly crowded into a preference of vegetable extracts, resinoids and alkaloids, against its own perceptions of truth. It would not be true to assert that the profession, *par excellence*, has been educated by the superior wisdom or deeper research of the "Botanic Schools."

Physiology has not spoken a word on this subject, directly. Chemistry has neither approved nor condemned. Yet, a choice has been, and is being made, in which testimony is in favor of vegetable products as remedial substances. Such a fact is not without significance. Let us see if some light may not be thrown upon it from a new stand-point in therapeutics.

In a paper published in the August number of this Journal, current series, entitled "Disease and Cure," it was suggested that the power of cure resides in the organism, and is a part of that science which attaches to all organization, corresponding to the needs and functions of each specific organ, tissue, or being. That this science presides over organization, and endows it with intelligence to the extent of selection and appropriation from pabulum offered in common to all the organs of a given being, such parts, substances, or elements as are adapted to the wants and uses of each organ, together with the power to reject or eliminate substances forced upon the organs "not wanted" if within a given limitation, This proposition is not likely to meet with denial so long as it is confined to the relation of the organs to nutrition and functional use. Let us apply the same theory to the relation of the organs to medicines. Let us assume that all substances, when introduced into the system, are subjected to the same laws. That the organs either accept or reject them according to their needs and compatibilities. What class of remedies would any Physiologist be certain to pronounce as most likely to be accepted and appropriated by the organs, other things being equal? Without hesitation the answer would be, that class which has already passed through or into the process of organization: Organized products. Next to this would be, elementary substances most capable of entering into organization through assimilation. Let us modify the superstition, then, and assert the superiority of organic compounds and elements, instead of running the line of distinction between mineral and vegetable, and doubtless we approximate a scientific affirmation. Man is the ultimate of organization. All organic processes which preceded man were causes conspiring towards the production of man. Being the ultimate, highest most complex form of organization, he is in all of his characteristics, qualities, manifestations and needs, the farthest remove from inorganic forms. Even the mineral elements which enter into his organization are required to enter into lower organic compounds before they are adapted to his use. It is true there is a certain amount of tolerance in the mature body, if not of use, for an exceedingly limited number of mineral compounds, in minute quantities, which are capable of entering into organic forms, but which have not already done so: such as the compounds of Soda and Iron. But it is questionable, now, if the organs of the human body are not sensitive on this point. Will not the Specirum Analysis throw light upon the subject?

In view of the above facts we may infer that all objects introduced into the human system, influence the organization and the special organs upon

which they may be thrown in one or two ways: by being appropriated, and affecting the organ by entering its intimate structure, with a remote influence upon other organs through the effect produced upon the function of the organ directly influenced—or by rejection, affecting the organs through the necessity of elimination, with like remote influences from functional disturbance occasioned by the above necessity. Physically considered, all substances not already organized, certainly all substances not adapted to the organic needs of the human body, affect the system through this necessity of elimination. The same may be said of all organic substances given in quantities beyond the immediate requirements of the system. Is not this effect, virtually, poisoning? If the quantity is greater than the eliminating capacity of the system, the effect is fatal. If within that capacity, we call it medicinal. Query: Is it valuable?

The following quotation from Prof. BOUCHARDAT appears in the Journal for September, and is an admirable illustration of my thought respecting the comparative merits of inorganized and organized agents as medicines.

"The minute division of Iodine in Cod Liver Oil, the particular state in which it exists, must singularly facilitate its absorption by the tissues. * * * Also, Iodine in the oil is not eliminated from the system *as the other soluble preparations of Iodine;* in this elementary combination its action is slower, more regular, and more persistent."

Why? Because it has been subjected to a preliminary organic process in the liver of the Cod, adapting it to the use of the more complex organization of the human tissues.

But, admitting all of the above suggestions as true, it may still be contended by the advocates of "heroic treatment;" by those who delight in the observation of specific effects from remedies; who cannot conceive of a possible good to be achieved by agents that give no immediate and visible token of power, who administer drugs as the unskillful play at billiards, sending balls with great violence, striking every possible angle of the table hoping to "scratch something," depending on "general results," that curative influences are exerted by violence done to the various organs, in requiring them to eliminate offensive and chemically hostile elements which never were, and never will be, accepted by the intelligence which presides over organization in the human body.

It would be great presumption in any author at this time to assert that emesis, diuresis, catharsis thus induced have never subserved a curative purpose. Like the more ignorant grades of medical men, in certain relations we admit them to have been useful, indispensable indeed; but it does not follow that they remain "the best."

If the ends once sought to be attained, with partial success through violent processes, dangerous and unnatural, can be effected by more intelligent methods, it is our province to discover and adopt them. By so doing we pass from superstition into science.

A Case of Uretero-Vaginal Fistula — Successful Operation. By THEOPHILUS PARVIN, M. D.

In presenting an illustration of a lesion hitherto unrecognized among surgical diseases, so far as we have been able to ascertain by a somewhat diligent research of several treatises on surgery and many medical journals, and by inquiry of some of the leading surgeons and gynæcologists of our country—it is quite proper to refer for a moment, before entering upon a narrative of the case and its treatment, to a few authorities, in reference to the classification of urinary fistulæ in the female. Of course, the object of the reference is to show, so far as the authorities quoted will so do, the truth of the assertion that *uretero-vaginal fistula*, as a primary lesion, has not heretofore come under the notice of surgeons: that it may occur, and that it has occurred in some badly executed operations for vesico-vaginal fistulæ—the fistulous opening sought to be remedied being transverse and situated high up in the vagina, one or both ureters being cut in a too free paring the margin of the rent—is not to be disputed; but such examples are undoubtedly rare, and the lesion then is secondary.

In the article upon *Fistules Vaginales*, in the first volume of the *Bibliothèque du Médecin-Practicien*, Paris, 1842, p. 141, these lesions are divided into vesico-vaginal and urethro-vaginal. Jobert, *Traité des Fistules*, etc., makes no reference to a communication between one of the ureters and the vagina. Prof. H. H. Smith, *Principles and Practice of Surgery*, Vol. II., p. 559, speaks of vaginal fistulæ as vesico-vaginal, utero-vaginal and recto-vaginal: we confess ourselves at a loss to know the grounds upon which Professor Smith's second class is admitted. Professor Gross, *System of Surgery*, Vol. II, Urinary Fistules in the Female, refers to these lesions as vesico-vaginal, urethro-vaginal, vesico-uterine, vesico-utero-vaginal and vesico-rectal. Mr. Jonathan Hutchinson, *Holmes's System of Surgery*, Vol. IV., article Surgical Diseases of Women, gives the following classification: Fistulous openings may exist, 1st, between the urethra and the vagina; 2d, between the bladder and the vagina; 3d, between the bladder and the uterus; 4th, between the vagina and rectum. Sir James Simpson, *Clinical Lectures on Diseases of Women*, says: "Urinary fistulæ in the female usually implicate the base of the bladder where it rests on the vagina, sometimes high up, sometimes lower down, but commonly at some point in the bas-fond. Occasionally the perforation is into the urethra. In very unusual cases only, is the communication between the bladder and the neck of the uterus." Baker Brown, *Surgical Diseases of Women*, second edition, London, 1861, in his chapter on Vesico-vaginal Fistula,

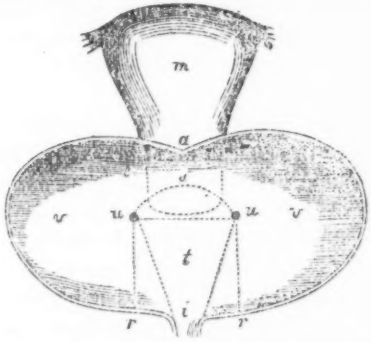
mentions vesico-utero-vaginal, vesico-uterine and vesico-urethro-vaginal fistula. Professor Byford, *Medical and Surgical Treatment of Women*, states that "Fistulæ of the bladder are sometimes located near the urethra, involving this tube; at others, at the cervix uteri, involving that organ; and again, in the middle, between these two points. But these fistulæ are also occasionally urethro-vaginal or vesico-uterine, without affecting any other parts." Da Costa Duarte, *Des Fistules Génito-Urinaires chez la Femme*, Paris, 1865, divides these maladies into urethro-vaginal, vesico-vaginal, urethro-vesico-vaginal, vesico-utero-vaginal, urethro-vesico-utero-vaginal, vesico-uterine, and uretero-uterine. Dr. Graily Hewitt, *The Diagnosis and Treatment of Diseases of Women*, London, 1863, speaks as follows: "The fistulous communication may be found in the canal of the urethra—urethro-vaginal fistula, or implicating the lower part of the bladder itself;" and in referring to the diagnosis of vesico-uterine fistulæ, asserts, "If the urine were seen running from the os uteri, this would conclsively determine the diagnosis." This last statement, though somewhat foreign to our present purpose, should not go uncontradicted, the necessity for contradiction being all the greater from the fact that it is made in a work whose chief merit, which is no little, is thoroughness and general accuracy of its teaching in diagnosis. We do not hesitate in saying that the escape of urine from the os uteri is not a conclusive proof of vesico-uterine fistula, for such escape equally will occur when the abnormal communication is between one of the ureters and the uterus.

Courty, *Traité Pratique des Maladies de l'Utérus et de ses Annexes*, Paris, 1866, speaks only of recto-vaginal, vesico-uterine, vesico-vaginal and urethro-vaginal fistulæ.

Without delaying to quote other authorities, we wish to refer for a moment before presenting the case, to the anatomical relations between the ureters and the vagina. And here any one who enters upon the investigation of the subject will be struck with the meagre and unsatisfactory information to be obtained from our text books on anatomy: we do not think it necessary to make good this assertion by a single quotation from Horner, Quain, Wilson or Gray.

Dr. Savage, *Illustrations of the Surgery of the Female Pelvic Organs*, London, 1863, gives the following statement of these relations: "On each side of the upper part of the vagina, the ureters turn upward to gain the sides of the bladder, running obliquely for a short distance in the vesico-vaginal septum, then forwards obliquely through its coats to open by two orifices about an inch and a half apart, about where they would open in the male."

Probably, however, the following illustration by Dubois, and which we have had copied from Courty, *op. cit.* will be more satisfactory.



m, the body of the uterus, *c* the neck, *v v* the cavity of the bladder, *u u* the orifices of the ureters, while the *trígone vesicale* is indicated by the dotted line connecting them, and the two lines passing to the vesical orifice *i* of the urethra; the bladder adheres to the neck of the womb in the space indicated by *a a*, and to the vagina by a quadrilateral which includes the *trigone vesicale*, and extends both laterally and upwards from it. With this illustration before the reader, it will not be difficult to readily appreciate the anatomical possibility of the occurrence of such a lesion as we now proceed to detail.

In November 1866, Mrs. R., of Franklin co. Ind., aged fifty-four years, came under my charge to be treated for a urinary fistula. This lesion had its origin in her ninth and last labor, which occurred in March 1852; in all her previous labors save the second, in which turning was necessary, she had met with no difficulty, and her health had generally been good. In her ninth labor, delivery did not occur until the fourth day: for twelve hours before the artificial termination of the labor, all pains had ceased: the practitioner in attendance had vainly applied forceps and made traction efforts with great suffering to the patient; my friend, Dr. Davis, of Brookville, was then called in consultation, and he readily discovering that the child was hydrocephalic, perforated the disten ed fœtal cranium, and delivered with the blunt hook.

Mrs. R. was very ill for several weeks, and soon discovered that she had constant dribbling of urine. Menstruation never occurred after this confinement.

While a certain quantity of urine passed involuntarily, the bladder could be readily evacuated at stated times by the urethra, but such evacuation was made more from reason than from any instinctive desire, no

matter how full the organ might be. She is conscious of the urine passing into the vagina, and she thinks she perceives it more readily when lying upon her *right side:* however, the quantity, as roughly estimated by the number of napkins that are wet in the twenty-four hours, does not vary, no matter what the position in lying, nor in standing, sitting, or walking.

Assisted by my friend, Dr. Thos. B. Harvey, whose kind and skillful help in the conduct of this difficult case I gratefully acknowledge, I made more than one careful examination, but for a time was completely baffled in determining the site and nature of the lesion. A urinary fistula there undoubtedly was, but where? Was it vesico-vaginal? Both digital and ocular examination failed to discover such a lesion; and besides, the bladder was repeatedly injected with milk, but not one drop of this fluid made its exit into the vagina, though we had the patient placed in different positions—on the back, right or left side, on the hands and knees. Was it vesico-uterine? We ought to have found some of the fluid injected into the bladder passing from the os uteri: we neither saw it nor any other fluid thus escaping, and besides, plugging the os uteri did not arrest the flow. The abnormal opening then, was neitheir vesico-uterine, nor uretero-uterine. The uterus was situated high up, and very little of the vaginal portion of the cervix remaining, the vagina quite large and very much relaxed, with unusually ample folds: these facts are mentioned to show the difficulty of exploration. Finally, by means of a large Fergusson's speculum, a minute opening in the vagina, scarcely large enough to admit the bulbous end of a laryngeal probe—an instrument, by the way, which I have found very useful as a uterine sound, and for the exploration of small vaginal fistulæ situated high up—this opening being upon the *right* of the median line, and a little below the os uteri, was discovered, and from it the urine escaped in frequent slight jets. The probe could be passed about three fourths of an inch towards the left, *in* not *through* the vesico-vaginal septum: once this distance was accomplished, by no "hook or crook" did we succeed in exploring farther.

I had the patient after emptying the bladder, sit for two or three hours over a vessel to collect all the dribbling urine; then immediately upon rising to evacuate the bladder into another vessel: the experiment was repeated several times, and in every instance the quantity escaping by the fistula was very nearly the same as that discharged by the urethra.

It seems to me that the facts thus brought forward warranted but one conclusion, viz.: that the fistula was *uretero-vaginal.* But admitting this, which ureter is involved? The orifice is nearer the right than the left; but the probe passes towards the left, and that the latter is the one which

Plate 1.

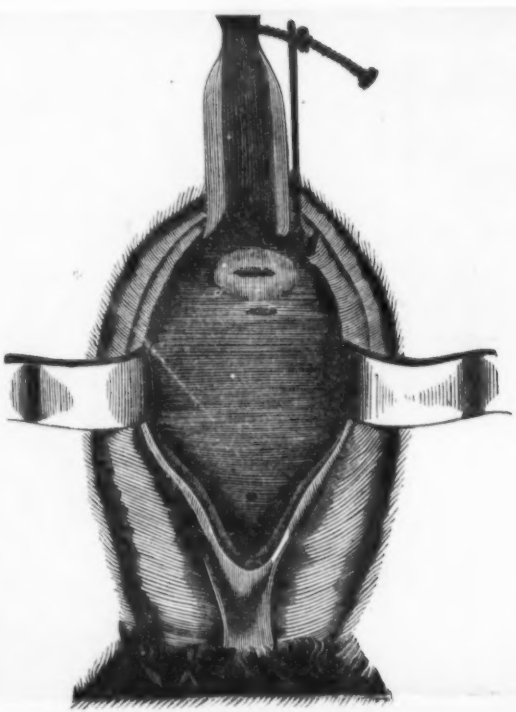


Fig. 2.

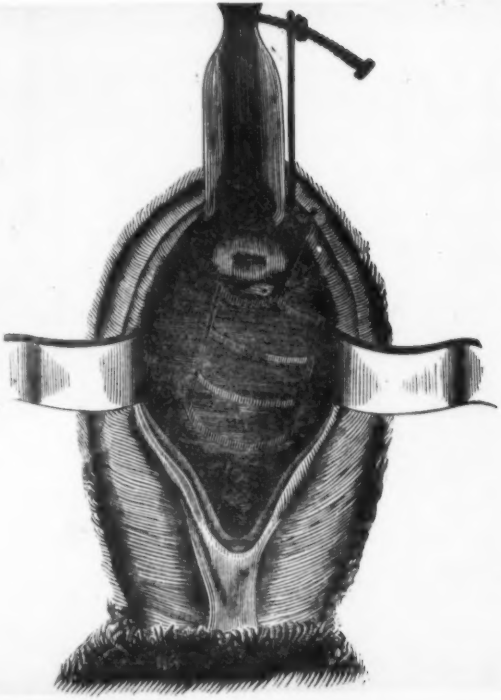


Fig. 1.

Illustrating Dr. Parvin's case of uretero-vaginal fistula. *Western Journal of Medicine, October,* 1867.

emptied into the vagina is sufficiently proved by the consequence of one of the three unsuccessful operations which were performed for the cure of the lesion, consequences which I shall mention when speaking of the particular operation in connection with which they occurred.

Satisfied as to the character of the lesion, the treatment should embrace two steps: viz., first, the establishment of a communication between the ureter and the bladder, and, second, the closure of the opening into the vagina. The first object was readily obtained by means of a medium-sized curved trocar, which was passed along the dilated fistulous canal as far as possible, and then turned directly to the cavity of the bladder, a puncture made of this organ, and upon the withdrawal of the instrument the milk with which the bladder had been filled, escaped into the vagina. Then for nearly two weeks, in order to insure the patency of this new opening, a large-sized probe was passed through it: in reflecting upon this step and upon the subsequent history of the case, I can not but think that quite probably this very process had a tendency to throw the two openings, vesical and vaginal, of the fistulous canal nearly if not quite opposite, instead of remaining distant from each other, as in theory they were intended to be, at least three-fourths of an inch.

In Figure 1, Plate 1., the position rather than the character of the minute fistulous opening is represented; the patient, as in the succeeding figures, is lying upon the left side; the speculum is that of Prof. Thomas, of New York, and somewhat at the expense of the laws of optics, there is represented in this first figure, the entire portion of the arm—attached to the speculum where the intra-vaginal portion terminates in the handle—and used to push forward the vesico-vaginal septum; those who are familiar with Thomas's instrument will observe that I have altered this portion of it—making it much larger, and somewhat different in shape and construction—this form, I may remark, was arrived at after experimenting with two or three others, and it really proved quite useful in this particular case.

December 16th, the first operation for the closure of the fistula was made. The paring of the edges was done by what Prof. Simon so strongly advocates, *Vierteljahrschrift für praktische Heilkunde.* xxiv. *Jahrgang.* 1867. *Zweiter Band.*, the abrupt beveling, making, in this instance a funnel-shaped opening. The hemorrhage was quite profuse, the light bad, and nearly all the conveniences for operating satisfactorily wanting: the failure which followed was not unexpected.

Next I cauterized, cauterized several times, cauterized once, having previously passed a silver wire through the healthy tissues beyond the fistulous margins, twisting its ends after the falling off of the slough,

hoping that thus I might bring the freshened surfaces in contact and secure their union: but all without avail.

Then another operation in which I used Banon's harpoon for catching the fistulous edges, and vivified them, unannoyed by much hemorrhage, and with little expense of the deeper tissues: but this too failed.

February 10, '67, another cutting operation, and for a few hours I was congratulating myself upon its success, for no drop of urine escaped into the vagina. But then commenced the most agonizing pain in the left iliac region, in the course of the left ureter, and in the corresponding kidney, nausea, vomiting and prostration; and these symptoms persisted in spite of various remedies, both local and general, for more than forty-eight hours, subsiding soon after the free escape for the first time after the operation, of urine from the vagina: my patient was not only not better, but worse—a slough had taken place toward the left of the original fistula, and communicating with it, and I had not only a uretero-vaginal, but also a vesico-vaginal fistula!

In figure 2 of the first Plate, there is represented the appearance of the double fistula at this stage of the attempted cure.

As Mrs. R. had become quite broken down in health—weak, anæmic—I advised her to go home and recruit, deferring until spring all other operative procedures.

In May she returned, with her general condition much improved. Meantime I had two wants, the urgency of which I had experienced in previous operations supplied—an operating table and a sky-light. On the 18th of that month, the operation was performed which, in its complete success was some reward for her heroic patience and perseverance. I was assisted by Drs. Harvey and Ward, and by my students, Messrs. Wright and Vance.

Three objects were kept in view in the operation: 1st, let the dissection be confined to a removal of a strip of mucous membrane; 2d, towards the left, where the ureter opens, let a margin be left next the fistula, obtaining the freshened surface for adhesion completely outside of the fistulous edge; 3d, let the superior freshened surface embrace a portion of the anterior lip of the womb.

As the anterior vaginal wall was, as previously mentioned, very much relaxed, when the dissection was done, and the wires introduced as represented in figure 1, Plate II, there was no difficulty in drawing up the tissues so as to firmly attach them to the denuded portion of the anterior lip of the womb, and in this process it is evident that the entire fistulous margin was inverted towards the bladder. Two of the stitches penetrated the entire thickness of the uterine lip; and of these two the one nearest the ureter

Plate 2.

Fig. 1

Fig. 2.

Illustrating Dr. Parvin's case of uretero-vaginal fistula. Western Journal of Medicine, October, 1867.

was passed very superficially as to the inferior denuded surface—barely beneath it—so as to escape the possibility of obstructing the vesical outlet for the urine. The second figure of Plate II, represents the appearance after the parts were brought in apposition, and the wires were twisted.

There was nothing special in the after-treatment requiring notice, save that the vesical pain and tenderness from which the patient suffered for the first few days, I found best relieved by washing out the bladder twice in the twenty-four hours, with warm water and laudanum.

The stitches were removed on the eighth day, and the cure was found o be complete. In a most grateful letter received from her husband a few days since, I learn that Mrs. R. continues perfectly well, and rejoiced at the removal of the painful and disagreeable infirmity from which she had suffered for more than fifteen years.

A word or two in conclusion. No one can doubt, considering the anatomical relations between the ureters and the vagina, especially as shown by the illustration from Dubois, found on a previous page, the possibility of such a lesion as we have described occurring. Nor would any one after a careful investigation of our case, a thorough examination of the fistula, for a moment doubt the fact of its occurrence.

The existence of a uretero-uterine fistula has more than once been established, not only by symptoms observed during life, but also by actual *post mortem* examination. Now the antecedent improbability, the anatomical difficulty, is no greater of a uretero-vaginal than of a uretero-uterine fistula: in each instance the natural outlet of a portion of the urine is closed, and it finds a new route to the exterior. In the case which we have reported, the urine traversed its abnormal channel for a certain distance in the vesico-vaginal septum before emptying into the vagina, just as in some cases of uretero-uterine fistula, a direct and immediate perforation into the uterine cavity has not been made.

As to the instances of uretero-vaginal fistula resulting from badly performed operations for vesico-vaginal fistulæ, I have never met with such; but that they might occur in this way, can be readily conceived, and the statement of Dr. Savage, *op. cit.* is distinct as to their having thus happened: my friend, Prof. H. R. Storer, in a recent letter to me, also states that the only examples of this kind he has ever known, had such origin.

I believe that, as stated in the first part of this paper, there is here recorded *the first case of uretero-vaginal fistula as a primary lesion;* and that there should be added an eighth variety of genito-urinary fistulæ occurring in the female, to the excellent classification given by Da Costa Duarte.

Case of Spontaneous Evolution. By JOHN LEWIS, M. D., Ogden, Ind.

I was called to see A—— M——, an unmarried female about twenty-two years of age, and in her second labor, at 8 o'clock, P. M., September 4th, 1865.

About two years previously she had been delivered of twins, one being born naturally while the other, still-born, was brought to light by two physicians with a "pot-hook," which, during traction, slipped and probably caused a vesico-vaginal fistula.

The patient had a severe chill two days previous to my first visit, and another the day following. I found her in bed, countenance indicating severe pain, skin hot and feverish, bowels constipated. Labor pains had been in progress for several hours; os uteri dilated to the size of a dime, but firm and unyielding. Administered a cathartic, quinine and morphine.

Sept. 5th. Patient vomited almost incessantly since my last visit, ejecting a large amount of greenish colored fluid; uterine efforts ceased before midnight; had another chill this morning. Treatment of preceding day continued.

Sept. 6th. Saw patient at 2 o'clock, A. M. Strong uterine pains commenced during the night. Vaginal examination discovered the left shoulder and side of the fœtus forced down into the pelvic cavity; the face towards the sacrum of the mother; the head over, and the shoulder under the right ramus of the pubis; the os uteri beyond reach; external genitalia well relaxed. In about one hour the back of the fœtus began to present at the pelvic outlet, and the shoulder to pass upwards above the pubis. Four hours afterward, the head and shoulder had receded so far as to allow the breech to sweep the sacrum of the mother. At 7 A. M., labor terminated in the delivery of a dead and decomposing child of ordinary size. Owing to the entire absence of the umbilical cord, by which to guide my efforts, there was some difficulty in removing the placenta which was undergoing disintegration. The uterus contracted well.

Sept. 7th. Lochia, very dark colored and offensive in odor. Patient has been feverish since delivery, but rested comfortably during the night.

Sept. 11th. Convalescence progressing rapidly. Some tumefacation of breasts, and pain along the course of the right sciatic nerve; these, however, yielded to proper remedies, and recovery soon took place.

Dr. Denman was the first to give "to this peculiar change of position, effected by nature, the term of Spontaneous Evolution;" his idea was that labor terminated as in breech presentation. This idea was for some

time considered the true one, by the profession, until Dr. Douglass, of Dublin, in a pamphlet published in 1811, controverted it, and maintained that the head and shoulders did not pass up into the pelvis, but that the fœtus passed double.

Dr. Douglass' explanation, since its publication, has been received by most writers on obstetrics.

In the case above detailed, the fœtus certainly passed in the manner described by Dr. Denman.

Disturbance of Nervous Balance in Disease.

Indications of loss of balance between the centres of nervous force are constantly before us in disease. In fact, in a very strict sense, every active and sudden phenomenon of disease which we recognize is the result of this disturbance. Hence the reason why mental impressions influence so easily morbid changes of function for good or for evil. Cases of drunkenness from alcohol afford in various stages varying phenomena, all of which depend on varying degrees of disturbance in the function of the centres of force. As a rule, alcohol first influences those centres which govern the voluntary muscles; in time, the poison being continued, the centres of thought or sensation become influenced, and sensibility begins to fail; last of all, the centres of involuntary motion come under the spell. Again, during recovery from the intoxication, those centres which were first affected continue affected longest, the centres of thought and reason and sensibility becoming once more active while yet the centres of motion are in abeyance, and fail to obey the volition. Indeed, in the process of intoxication, where all the nervous centres are bathed in poison, so strikingly is the disturbance of balance manifested, that we can, for a time, gauge and measure a man by his acts and words. Those centres of his nervous organism which are most feeble succumbing first, the more active are left uncontrolled, and proclaim their preponderating power. The sentimentalist weeps, the ruffian shows fight, the man of memory grows yarny, the wit outdoes himself, the funny man laughs, the singer sings, the angry man grows furious, and the cunning rat gives you a rat's face that Landseer might study. Each man, in short, works his one big centre until it at last either succumbs with the rest, or the rest sober up to it. *In vino veritas*—Ah, truly! and translated physiologically it means that the strongest nervous centre is going full swing when all its balancing centres are under the table. The wineglass itself is not more transparent than the man who has emptied it too often at one poisoning.

Some forms of insanity partake in like manner of simple disturbance of balance. This is especially the fact in monomania, which may either depend on exalted function of one centre, or depressed function of those centres which should balance the one.

In cases of pressure on the brain or spinal cord we get also signal instances of disturbed balance of nervous power. As when we froze the cerebrum of the pigeon we laid it unconscious, destroying its volitional

power, and leaving its involuntary centres unaffected, so in some accidents causing general pressure (pressure is virtually the same in action as cold), the human subject has been laid low with the consciousness and volition lost, but the involuntary force unchanged. In other cases where we have a partial pressnre we discern a more distinct irregularity of function, precisely as in the birds when the freezing is localised. I knew a case in which a man tried to hang himself, but was cut down before he was dead. As he was liberated, quite unconsciously, he rushed madly forwards and fell; he lived three days, and after death I found extensive effusion in the ventricles and the most intense congestion of the cerebrum, the cerebellum being scarcely affected. That rush forward was from the action of the cerebellum—action uncontrolled. In one of my hospital journeyings a man was shown to me who, from disease, had lost portions of the bones of the cranium at the upper part, so that the cerebrum was covered only by skin, and the pulsations of its vessels could be felt. This man could bear slight pressure on the exposed part, but when the pressure was increased he at once became giddy, with an uncontrollable tendency to precipitate himself forwards. I noted this at the time as a simple fact, thinking nothing then of the light that experiment would throw over these forms of disease.

We might linger long on these disturbances of nervous power, as they are exhibited at the bedside, but I must confine myself on this occasion to one or two further notes, and these general.

1. I would point out that in diagnosing the seat of injury or disease in cases of disturbed balance, the prominent or presenting symptoms should not be taken as of necessity indicating primary disease of the centre through which the symptoms are demonstrated, but sometimes of a centre which may be remote—that is to say, a balancing centre. For example, involuntary convulsive movements, apparently spinal, and compatible with the hypothesis of increment of force in the cord, may, in fact, be due to mere decrement of controlling force in the cerebrum, as in convulsion from pressure on the cerebrum, from deficient cerebral organization, or from cerebral degeneration; or symptoms of deficient volitional power, apparently cerebral, and which are compatible with the hypothesis of decrement of force in the cerebrum, may be due to decrement of force in the spinal cord. Thus in my former lecture I explained that, on suddenly removing force from the cord by extreme cold, symptoms even of stupor were made manifest. In dealing with diseases of the nervous centres and in the careful diagnosis of these diseases, I know of no point of practice that is more important than this relation of balance between one centre and another, and the relative increment of force in one centre by the loss in another centre that sustains the balance during periods of healthy action.

2. If we forget this relative balance of power and destruction of balance by failure of one part, we may mistake often active symptoms arising from passivity of one organ and relative activity of another for actual increased activity of an organ that is quite natural. I believe this mistake is frequently made, and that it leads to bad results in practice—leads to the adoption of depressing treatment when the body should be most carefully sustained.

3. In some extreme cases, where for long periods of time the nervous centres have been exposed to the continued action of a destroying agency—the agency of alcohol, for example—groups of centres of power, centres which balance each other, give way altogether, or so nearly together that disturbance of balance of function is seen but for a short interval, or is not seen at all. Cases of general paralysis and dementia, cases which so largely occupy our asylums for the insane, are of this class.

Lastly, on this question of balance, I would point out what seems to me the fact, that the balance between two centres may suddenly be broken in moments of quick vehemency of action of one centre. The madness of rage, in which the cerebral reasoning centres become temporarily paralyzed by over-action, leaving the propulsive cerebellum to free and uncontrolled impulse, is a case of this kind in its temporary form and development. But the event may be more than temporary; the brief arrest of function, especially if it has been often repeated, will, in some instances, be attended with physical change of structure and loss of molecular capacity for the reception of force; and then, the balance of centre permanently broken, the phenomena which we call mental cease to be orderly; predominating impulses, or desires, or resolves, not, perchance, before known, because held previously in check, prevail; then the mind is unhinged, as the common saying expressively describes the pure physical truth, and then it is often ignorantly wondered how the sufferer, who once showed none of the tendencies he now shows, could have suppressed such tendencies so long or so artfully.

I believe that the physical meaning of morbid impulse is, in every case, a broken balance of nervous centre; the sudden exhibition of uncontrolled force of an organ previously held in even action by another centre; a centre up to a given moment active, at a given moment dead.

The nervous organism, in short, may die in parts, and one centre or more may be dead to the reception of force, while the rest of the body, volitional and vegetative, lives, in mental constitution a changed body. In old age, this progressive change naturally envelopes all the volitional centres, which truly die, while the vegetative remain. And conversely, sometimes in the heydey of youth we see the mere vegetative centres die only, and thereupon—so dependent is the higher upon the lower life—all the centres of thought and volition share in the catastrophe; sudden and general silence and inertia communicating to the looker-on the phenomena which he summarises in one word—*death.—From Dr. B. W. Richardson's Lectures on Experimental and Practical Medicine, Times and Gazette, London, August* 31*st.*

Opium in Therapeutics.

The practice of physicians in America and in Great Britain, if not elsewhere, has changed very much in regard to the use of opium in fevers and some other forms of disease, within the last twenty or thirty years. Some remarks of Dr. Allbutt on this subject, in *Ranking's Abstract*, referring to the use of this remedy in the Leeds (Eng.) Fever Hospital, so entirely accord with the results of our own

experience, that we take the liberty of commending them to such of our readers as may still entertain something of the old prejudice: "One year ago," says Dr. Allbutt, "I looked upon opium in fever with much suspicion, granting its occasional value alone, and greatly restricted its use. Gradually my fear of the restlessness overpowered my fear of the opium, and I have now ceased to regard the latter with any great apprehension. Continually I have witnessed the terrible havoc which a night's tossing makes in a little reserve of strength. Two such nights reduce it to a most precarious level, and few patients outlive three. On the other hand, though I and my assistants have been for six months giving morphia at all stages of the fever to combat sleeplessness, I have never yet seen mischief result. I have never seen the power of taking food suspended by it, or the oppression increased. On the contrary, I have continually seen with pleasure how, on the morning after opium has brought sleep, even during the first few days of the disease, the tongue has become moister, the headache less, and the countenance more open. The sleep of an opiate is better than no sleep. Camphor is also a great favorite of ours. We find, on the whole, that no medicine equals it in the low delirium often connected with feeble heart. We combine it with opium in low delirium accompanied with sleeplessness. Perhaps, however, the most striking in its immediate effects, of all the medicines which we have used, is that which we familiarly call *Graves' Medicine*. The combination of antimony and opium in the wild delirium of fever is advised by Graves in a well known passage of the *Clinical Medicine*, and a marvelous one it is. Half a grain of morphia, with one-third or half a grain of tartar emetic, with repetition of half the dose if necessary, will bring quietness and sleep to a patient who, an hour or two before was a raging maniac." We do not exactly agree with Dr. A. that the power of taking food is never suspended by the remedy. But this is a small matter. The distinction between grades of delirium is important, the combination with camphor being adapted to the low form, and the antimony to the wild and sthenic form.—*Pacific Medical and Surgical Journal.*

Dr. Sims in Paris.

Mr. Sampson Gamgee, one of the ablest of British surgeons, and who is now visiting the French capital, is contributing to the LANCET a series of articles entitled "THE PRESENT STATE OF SURGERY IN PARIS." From the number found in the LANCET of September 7th, we find this reference to our justly eminent countryman, Dr. Marion Sims:

While on specialties, and before entering upon general surgery, I may relate the proceedings at a *séance* in the theatre of the Hôpital Beaujon (August 30th), when Dr. Marion Sims gave a demonstration of his methods, at the invitation of M. Richard. Among the large number present were Dr. Hingston, surgeon to the Hôtel Dieu, Montreal; Professor Pope, of St. Louis, U. S.; and Dr. Mazzoni, of Rome. Among the patients examined were several who had been operated on by Dr.

Richard, to use Dr. Sims' expression, with the most perfect result. No case for actual operation presented itself that morning, but nevertheless the skillful manipulation was a most instructive one; and I beg to thank Dr. Marion Sims for the patience, candour, and courtesy with which he answered all my questions.

For all examinations and operations on the vagina and uterus Dr. Sims uses the duck-bill speculum, and no other. He dislikes sunlight, and prefers light entering from one window directly at his back, to light entering the room from different quarters. The previous evacuation of the rectum greatly facilitates the use of the speculum. A table about four feet long, covered with a blanket, is preferable to a bed or couch for the patient to lie upon. The position is on the left side, body diagonally to the table, so that the buttock rests on the left of the angle next to the operator and the window. The spine straight with the head, which may be raised very slightly if more agreeable; not so the shoulders, for the chest must lie prone, and as flat as possible on the table; neither of the arms under the chest, but well apart. The thighs to be bent at right angles to the trunk; legs at similar angle, an assistant raising the feet slightly. For this purpose a small table, a little higher than the one on which the patient lies, is handy to rest the legs upon. It is convenient to flex the right thigh a little more than the left, so as to bring the right heel just in front of the left ankle. In this position the epigastrium is on a lower level than the pelvis; and great importance is attached to the waist being free from all constriction, so that the abdominal viscera may gravitate freely forwards and downwards, and allow of the entrance of air into the vagina when the speculum is introduced. As already observed, this position is the invariable one for all inspections and operations. But one exception is made. When the patient has cancer of the womb, in order to avoid hemorrhage or other accident from striking the cervix with the speculum, this is introduced while the patient is on her knees on a table, the chest prone and the back concave.

Before using the speculum, Dr. Marion Sims invariably ascertains the size, position and direction of the womb; and he does this, while the patient lies on her back, by left digital examination, palpation with the right hand above pubes serving to bring the uterus well within reach.

Whenever he introduces anything into the uterus, be it a sound or a tent, a syringe or a knife, he fixes the cervix with a tenaculum, after introducing the speculum, and is thereby enabled to ensure steadiness, and, when necessary, to draw down the neck of the womb into the vagina, and so direct it as at once to see into it. It is only when he so fixes and sees it clearly that he divides the cervix, thus making it an accurately surgical operation, and not merely a mechanical one. In operating for fistula, he always fixes the vaginal wall with a tenaculum before paring it or passing sutures.

Dr. Sims does not share the opinion of French surgeons that the climatic and general conditions of Paris are unfavorable to the healing of wounds. I have much pleasure in adding that, in examining the series of patients so liberally placed at his disposal by Dr. Richard, Dr. Marion Sims was no less skillful in his manipulations than he was careful for the feelings, mental as well as physical, of the poor women.

BIBLIOGRAPHY.

The Physiology and Pathology of the Mind. By HENRY MAUDSLEY, M. D., Lond., Physician to the West London Hospiral; Honorary Member of the Medico-Psychological Society of Paris: Formerly Resident Physician of the Manchester Royal Lunatic Hospital, etc. New York: D. Appleton & Company, 443 & 445 Broadway, 1867.

The modern press has given no book to the public better calculated to attract attention and beget inquiry and discussion, than that the title of which is placed at the head of this article. If its doctrines shall finally be accepted by the philosophical world, a reconstruction of metaphysical science upon an entirely new basis will become inevitable.

The author avows in his preface that his object in writing has been twofold: "first, to treat of mental phenomena from a physiological rather than from a metaphysical point of view; and, secondly, to bring the manifold instructive instances presented by the unsound mind to bear upon the interpretation of the obscure problems of mental science;" and this object he pursues tnroughout the entire treatise. He denies the adequacy of the method of interrogating self-consciousness, as the means of establishing a sound philosophy of the mind; and maintains that physiology alone can lead us to such a philosophy. His system may be regarded as the consummation of the development hypothesis. Mental phenomena result from organization, and rise in degree as that increases in perfection—sense, reflection, will, etc., being each the product of a certain order and arrangement of cells in the brain, and ceasing whenever these cells are deranged in their conditions, or destroyed. Thus, the conscious ego becomes a mere phenomenon of material organization; and, it would seem must perish with the organic structure through which it is made manifest. In the language of the author, mind "viewed in a scientific sense, as a natural force, can not be observed and handled, and dealt with as a palpable object; like electricity, or gravity, or any of the natural forces, it is appreciable only in the changes of matter, which are the conditions of its manifestations."

It is not possible, however, for us to give even an analysis of the contents of the volume; for it is so closely and severely reasoned, that its dimensions can scarcely be diminished without the loss of important matter, which leaves us incapable of comprehending what is left. It is divided into two parts, the first of which embraces the physiology of the

mind; and the second, its pathology. The Physiology is embraced in nine chapters, headed as follows: "On the Method of the Study Mind;" "The Mind and the Nervous System;" "The Spinal Chord and Reflex Action; "The Sensory Centers and Sensation;" "The Supreme Cerebral Centers and Ideation;" "On Emotion;" "On Volition;" "On Actuation;" "On Memory and Imagination." The second part, or Pathology of the Mind, is set forth under the following heads: "On the Causes of Insanity;" "On the Insanity of Early Life;" "The Varieties of Insanity;" "The Pathology of Insanity;" "The Diagnosis of Insanity," "The Prognosis of Insanity;" and "The Treatment of Insanity." Under these heads the whole subject is clearly and ably treated; and while we are not prepared to accept the author's extreme views, of the dependence of the mind upon organization as its cause, we can not too highly recommend the book to the profession as one well calculated to awaken inquiry; and lead to sounder views of healthy and diseased mental action than are generally entertained.

The book is magnificently printed, in fine large type, on heavy tinted paper; and is every way worthy of a place in every library. J. W. G.

Injuries of the Eye, Orbit and Eyelids; their Immediate and Remote Effects. By GEORGE LAWSON, F. R. C. S. Eng.; Henry C. Lea, Publisher, Philadelphia. For sale by Robert Clarke & Co., Cin. Ohio. *Will be sent prepaid on receipt of* $3 50.

This illustrated monograph of 408 pages fills a vacuum in Ophthalmic Surgery. Injuries of the eye are of frequent occurrence and every physician should know the latest and best methods of dealing with them. In this volume such information is to be had. In case of a foreign body being lodged in the eye, the physician should know how to extract it, inflicting the least possible amount of injury; and it is all important that it be done as early as practicable after receipt of the injury, as delay renders the operation difficult and often entails irremediable consequences.

The author's style is excellent; clear, concise and definite. We can not too highly commend it to the notice of the profession.

The binding is in the latest and most approved style; the illustrations are good, and the whole volume executed in the best possible manner. J. A. C.

On the Management of Labor in Contracted Pelvis. By Wm. H. Jones, Doctor of the Faculty of Med. of Paris, and member of the Royal College of Surgeons of England. London: 1867. 8vo. pp. 59.

This little work is a translation of its author's thesis written for the Faculty of Medicine of Paris, and contains his experience in labors with

contracted pelvis, observed during eight years' hospital practice in the French capital, three of which were passed at the hospital of *La Clinique d'Accouchement.* It is written especially to advocate the English plan of version in dystocia of this character, and the French operation of cephalotripsy, each, of course, in appropriate cases; the author believing that each nation fails to avail itself of the experience and favorite operation of the other. The work contains tables and particulars of fifty-one cases of difficult labor from contracted pelvis, and we can confidently recommend it as a valuable contribution to practical midwifery. R.

Self-Abuse in Women. Letter from M.

AUGUST 22, 1867.

EDITOR WESTERN JOURNAL OF MEDICINE:—I was highly gratified with the excellent and much needed observations of Professor Storer, on "Self Abuse in Women," published in the August number of your Journal.

I do not believe that the extent and ravages of this evil begin to be fully apprehended. The habit is so disgusting, as a voluntary exhibition of salacity, that to entertain an idea of its wide prevalence, without proof, appears to be simply monstrous. But this sentiment checks inquiry, and itself defeats the acquisition of proper knowledge, by superadding to a sense of delicacy the terrors of misconception and offence. Nor are the latter altogether unfounded. In one case, I myself encountered the unappeasable indignation of an unmarried patient, aged about twenty, and through her the subsequent contempt, ill-will, and active opposition, of several of her family relatives, who up to that time had employed me. Here the "accusation" was certainly not gratuitous, for beyond question the girl was guilty; that her obstinate, complex, and otherwise inexplicable derangements were caused by self-abuse, no intelligent physician could have doubted. She still lives, but notwithstanding constant perseverance in different plans of treatment, has received no benefit; nor, in my judgment, will she. The fact is, the *causa morbi* is no doubt, to-day, in undisturbed and active operation. What avail, then, to fight its symptoms? In this case no duty could be plainer or more imperative, and yet a most circumspect and delicate attempt to discharge it was met with the questionable hospitality I have just stated.

I admit, in the instance cited, that that "delicacy and refinement" which, as a condition precedent to truthful disclosures, Prof. Storer takes

for granted, were not at all prominent. There was, moreover, a peevishness of temper, and slight feebleness of mind, which, perhaps, entailing a partial inability to appreciate the motives, and to comprehend fully the pertinence and value of such an inquiry, were not favorable to its candid and kindly reception. But the storm evoked was well calculated to induce a wholesome caution.

And now to the main purpose for which I write. In my opinion, a universal and intelligent conviction of the magnitude, and wretched consequences, of the evil can alone abate it. But this cannot be accomplished by the personal expostulation of medical practitioners of ordinary grade. It is insuperably difficult, without high authority, to convince a parent who is not herself contaminated, that her daughter can be guilty of such a thing. To do this requires the weight and influence of the known, and recognized, and authoritative medical teachers of our land. To these, even, much of the unsuspecting incredulity will yield a slow belief. But a determined effort by such men should be made. Until then I believe that the general practitioner who ventures on that ground will be usually met by the non-addicted but uninformed, with an imputation of gratuitous insult; and possibly of violating the sanctities of professional confidence to gratify the suggestions of a vulgar and prurient mind. As to the unhappy subjects of self-abuse the case is worse. Neither will the voluptuary abandon the habit until penetrated with its moral turpitude, and convinced of its destructiveness to health; nor will the unconscious but helpless victims of morbid irritation confess the fact, while ignorantly condemning their supposed infamy and secretly bewailing their abandonment to what they regard as a voluntary but ruinous and loathsome vice.

Let us away, then, with prudery, finical ideas and false modesty, and educate the people in this matter to the proper point. Youthful constitutions will not then give way under a fascinating indulgence, in which no mischief is known to lurk; disease will not then be misinterpreted and concealed as a crime; nor, from any properly conducted investigation of their own or another's case, will women, however acute their sensibilities, recoil. In short, the path will be made easy, and difficulties put away. Neither by patient, or parents, or friends, will the physician or his inquiries, in any contingency, be misconstrued; while on the other hand, an intelligent understanding will obviate the apprehension of cruel and undeserved contempt, and of ignorant and unjust persecution on the other.

If these things, then, are so, and if, indeed the sexual function is being daily and ignorantly perverted—whether voluntarily or through disease—to the destruction of moral, mental and bodily health, it is more

and worse than a futile evasion to ignore it—it is an inexcusable and wanton crime.

For this reason I join in the wish that something may be published which can "with perfect propriety" be circulated at large, and so cheap, even, as to make its gratuitous distribution by physicians and others attainable to all. I have no doubt "that all good men would back it," nor that the effort, when understood, would find a strong ally in the approbation and aid of intelligent women, and of the Clergy and the Church. Such a circulation of a short monograph, popular in style, and bearing the sanction of a proper name, would do incalculable good. Even the brief contribution of Prof. Storer to your Journal, if placed in the hands of one with whom an early allusion to the subject was intended, would do much to interpret the physicians' duty, to acquaint the patient with the true nature, propriety, and importance of the inquiry involved, and to insure for it the consideration of a tranquil and candid mind.

Will not Prof. Storer, or some one at his suggestion, undertake the work? M.

Cerebral Taches.—Cerebral spots or markings, a symptom first noticed by Trousseau as, if not pathognononic, yet strongly indicative of tubercular meningitis. If the finger nail or the point of a pencil be drawn, in three or four parallel lines, over the skin of the abdomen or thigh of a healthy person or one affected with the ordinary diseases, either no result follows, or faint red lines quickly show themselves and quickly disappear. In tubercular meningitis deep red lines follow the irriattion, and are remarkable not only for their depth of color, but also for their persistence. The same symptom may be observed in one or two other diseases, as the exophthalmic cachexia, but it is *par excellence* a symptom of meningitis. It is regarded by Trousseau as due to asthenia of the vaso-motor branches of the sympathetic.—*Dr. Henry M. Tuckwell.*

M. Guérin on Animal Vaccination.—(Partly as an answer to a correspondent, we publish the following from the *Times and Gazette*: further information in reference to the matter he will find in various numbers of the *Gazette Medicale* for the present year. T. P.)

M. Guérin, in opening the discussion on M. Depaul's report to the Acdemy of Medicine on the results obtained from "animal vaccination," protested against the exclusive attention which has been paid to this new mode in Paris during the last two years, instead of a faithful comparison having been instituted between it and the old mode. To this latter it has been objected that the virus obtained by "human vaccination" has degenerated in power, and that it has often been contaminated by syphilitic poison; and before rejecting a procedure so long successful it is requisite to inquire into the reality of these objections against it. It is indeed a fact now generally admitted that vaccination has lost some of its preservative power, and M. Bousquet himself, who so long denied this state-

ment, now admits it. But two questions call here for examination—Is such degeneration general and absolute, and observable in all countries and regions? and may not a greater virulence of the variolous epidemics have something to do with the relative insufficiency of vaccination. These points want examining, for many Practitioners totally deny the diminution of the efficacy of vaccination in their localities, and there is reason, both from experience and analogy, to suppose that the intensity of variola may vary much in different epidemics. There is a necessity also of making a more careful selection of the virus to operate with, for a defective virus is often employed. and unsatisfactory results follow, especially when such defective virus is propagated from child to child in succession. The selection, propagation, and maintenance of the finest virus—a true "vaccine culture"—ought to be the object of those having authority in the matter. As to "vaccinal syphilis," M. Guérin believes that in very rare instances it may exist; but many of the narratives which have been published of late are wholly destitute of proof, and the liability of such transmissions have doubtless been grossly exaggerated. In numerous instances in which the vaccine virus has been taken from subjects exhibiting symptoms of syphilis, no transmission of the disease has occurred.

There is no case made out for a radical reform in the practice of vaccination, and this "animal vaccination," introduced by a young physician from Naples, has been received far too readily as an improvement; for in point of fact it is a mere assertion that it protects from variola as well as the ordinary vaccination. While the virus employed in the latter originated in spontaneous cow-pock, that used in animal vaccination is derived from an artificial cow-pock; and all must admit that a spontaneous agent has a more powerful action than an artificial one. The vaccine virus also, transmitted through successive generations, may acquire peculiar and important properties, while animal vaccination is a much more special and limited affair, the heifer being resorted to afresh in each case. Even comparing the appearances produced by the two viruses, as stated in the report, it is found that those produced by human vaccination are more regular, and more durable and more energetic. In fact, as far as we are acquainted with the results of the employment of this virus, M. Guérin regards it as illusory and a mere Utopia. He quotes the adverse opinions of many Hospital and private practitioners who have found it decidedly less efficacious in vaccinating and revaccinating, to say nothing of its preservative effects, which time alone can demonstrate.

Reply to Prof. Hamilton.

Editor Western Journal of Medicine:—Sir: As Professor Hamilton began his communication in the August number of your Journal, by endorsing my *status* as a gentleman, I suppose courtesy would require me to return the compliment, but inasmuch as his claim to the consideration of a gentleman has never been disputed, an endorsement from any quarter would seem superfluous. If he will permit me to remain his

debtor until the next meeting of the Ohio Medical Society, I will then endeavor to cancel the obligation.

To my great surprise, the Professor's last letter has removed all ground of conflict between us. He says the question he has been discussing, is not whether 80 per cent. of the candidates examined by the State Army Board were rejected for incompetency, but whether this number stood rejected at the close of the war! He pretends that this is the issue as he understood it; if so, it is a great pity his last letter was not written first, for in that event, much precious time would have been saved, and the public would have been spared the humiliating spectacle of two members of an honorable profession wrangling for months over a simple question of fact.

The fault is due to the Professor's style of composition. He evidently belong to a class of medical men who deem it derogatory to their wisdom to speak plainly and intelligibly on any subject. You can never get a direct and explicit answer from these gentlemen; their heads are always in a cloud; they speak in parables; they revel in ambiguity; they are profound, mysterious, impenetrable and infallible. If called to a patient in the early stage of sickness, they avoid a positive diagnosis, but may give an opinion which is so skillfully framed and guarded, that when the true nature of the disease is patent, they can demonstrate to the friends that it turned out just as they had predicted.

But the Professor has another peculiarity of style which is rarely witnessed. He has the faculty of expressing himself in such a manner that his readers understand him to mean one thing, when he really intends a totally different meaning. Your readers doubtless, all believed that in this controversy Prof. H. was endeavoring to prove me in error respecting the number of candidates rejected by the Army Board during the war, but he avers this was not his object. He is like a man who squints badly you can not tell from his *expression* what he is aiming at.

In fact, this peculiarity amounts to an intellectual strabismus, and if I had been as discreet as a stranger who recently dropped into the slaughter-house of a cross-eyed butcher, I might have nipped our discussion in the bud. The butcher had raised his ponderous sledge, and was on the point of launching a fatal blow on the head of an ox, when the bystander nervously exclaimed, "Hold, sir! do you mean to strike where you are looking? If you do, I will get out of the way."

Had I been aware of the Professor's strabismus, I would have "stood from under." I imagined that he was aiming to prove that less than 80 per cent. of the regular graduates failed to pass the Army Board, but his

"mind's eye" was bent on a different object. He assures us that the purpose and aim of his labor, from the first, has been to demonstrate that 80 per cent. of the candidates did not *stand rejected at the close of the war!* I think he has accomplished his task, and I should not wonder if the achievement would recall to the minds of his collegiate brethren, the ridiculous old story of the mountain in labor.

Can it be believed that this issue and this alone, was before the Professor's mind when he assailed my Report. Most assuredly not. A brief review of his first article will satisfy any candid person that he took direct issue with my Report in regard to the examination of the Board. My Report contained no allusion, in any shape or form, to the number that "stood rejected at the close of the war," and his attempt now to force this construction on my language is a most unwarrantable liberty. He is not content with affirming his understanding of the issue, but he insists that my language is not susceptible of any other interpretation, and even goes so far as to assert that I intended to convey this meaning. I regret the Doctor allowed himself to make this assertion, for it imposes on me the painful necessity of a direct contradiction. The idea of stating the number of candidates who stood rejected at the end of the war, never entered into my head.

That the injustice and recklessness of the Professor's statement may be apparent, I will now quote my language, as it stands related in the Report, and I invite attention to the context, which indicates a very different *animus* from what the Doctor is pleased to attribute to me.

"Although the Annual Reports of this Department have heretofore been confined to subjects of a strictly military character, there does not appear to be any thing in the nature of the office imposing this restriction; I shall therefore take the liberty of inviting the attention of your Excellency to some matters of vital importance to the health and welfare of the State; and first to the great injury inflicted on society by the license given to ignorant and unworthy men to engage in the practice of medicine. There is no doubt that hundreds of human lives are annually sacrificed in our own State, by the malpractice of this class of doctors. The evil is incalculable and increasing, and as it can only be remedied by legislative interposition, I would earnestly recommend the passage of an act to establish a State Board of Medical Examiners, similar in character to the late Army Medical Examining Board.

The eminence accorded to Ohio surgeons for skill and fidelity in the late war was not due to any merit in our system of medical education, but to the faithfulness of the Examing Board.

The gentlemen composing this Board were distinguished for integrity, patriotism and professional ability. Animated by an earnest zeal for the efficiency of the service, they recommended for appointment only those

who possessed the necessary qualifications. *None but graduates of regular medical schools were admitted to examination, and yet over eighty per cent. of these were rejected for incompetence.* The ignorance betrayed by many of these candidates was deplorable, proving that the diploma of a medical college has ceased to be of any value as evidence of capacity.

If it was the duty of the State, as all concede, to provide competent physicians for the soldiers, it is no less a duty to make similar provision for the citizens; and yet these rejected candidates, with hundreds of others equally incompetent, are now scattered over the State, pursuing their fatal trade with criminal recklessness."

The foregoing is a correct copy of that portion of my Report which contains the obnoxious paragraph. I think no one will say that it is either obscure or ambiguous. Does the reader discover in it any reference to the "final action" of the Board, or to the number who "stood rejected at the close of the war"? Does the language plainly import, that, of the candidates admitted to examination, over 80 per cent. were rejected for incompetency, or does it mean that this per centage" stood rejected at the close of the war? In other words, does my Report mean what it says, or does it mean what Prof. Hamilton, in a moment of moral insanity would force it to mean?

If any doubt still exists on this point, let my language be tested by applying it in a different case.

Let us suppose that Dr. Hamilton's colleagues in Starling Medical College should inform me that in the year 1861 they rejected 10 candidates for graduation on account of incompetency, that in 1862 they rejected 10 more, and that in 1863, 5 more were rejected.

Upon such authority I should not hesitate, if necessary, to state that, of the candidates admitted to examination at the above named college during the period referred to, 25 were rejected by the faculty for incompetency.

Prof. H., after taking a few months to reflect on the matter, would become indignant and pronunce the statement a "blunder" and a slander upon the *Medical profession.* He would demonstrate that not more than 5 candidates failed to receive a diploma. If, in justification of my statement, I referred to the information obtained from the college, he would insist that the issue was not how many "examinations" were unsuccessful, but how many of the candidates stood rejected at the date of my writing, and he would prove that all but 5 of these rejected gentlemen had been graduated prior to that date.

Who that read the Doctor's first letter can forget the triumphant air that characterized his entrance on this discussion. He informed us that he had been a member of the Examining Board—that he had been its

Secretary—that he was sole possessor of the records by which he proposed to prove the inaccuracy of my report. He described with much minuteness how carefully each examination had been recorded—how securely the record had been sealed, and how faithfully it had been preserved. The state of preservation was pronounced "perfect." In fact, he seemed to have the impression that the record had been providentially saved from the natural decomposition and wreck of matter, for the express purpose of enabling this self constituted Attorney General of the quacks and sheepskin-dealers to defend his clients from the assaults of the Surgeon General.

(Your readers will please note that I have not said *sheepskin-stealers*, although, if I had half the mathematical *forte* of my worthy opponent, I might almost demonstrate the financial impossibility of certain medical schools paying an honest price for their sheepskins at the present low rate of their lecture fees.)

From the whole tone and spirit of the Professor's first letter it is perfectly evident that he designed to make the impression that he was opposing my statement by the record in his possession. In one place he exclaims "Now for the record," as if impatient at his own delay in exhibiting it, but before the seal is broken other explanations have to be made, and he finally loses himself in a mass of irrelevant detail. Up to this hour the contents of the record have never been divulged. Many "good men," after a cursory reading of the Doctor's first communication, actually supposed that the figures presented by him were taken from his official documents, but a second and more careful examination revealed the fact that he had adroitly substituted false assumptions and bad logic for the record.

It must be clear to every candid mind that Prof. Hamilton's first essay was a piece of consummate sophistry. Failing in that he now seeks an exit from his dilemma by seeking to change the issue.

Personally Dr. H. is no doubt an honorable gentleman—professionally I think he is a little foxy. Every man has his model—some of the world's greatest men have learned wisdom and derived inspiration by studying the habits and instincts of certain animals. History informs us that the celebrated ancient general, Pyrrhus, attributed his success in arms to a lesson taught him by the wild boar. That lesson was *always to protect his rear*. Pyrrhus observed that the boar, when hotly pressed by the hunters, invariably backed up against a rock or tree, and thus kept his pursuers at bay. Our learned Professor did not borrow his tactics from the wild boar, but from the cunning fox. He has shown himself an artful dodger, full of craft and quirks and quibbles. Permit me to refer to a

few of the Professor's tricks in order to illustrate the foxy quality of his tactics.

He ignores the real issue made in my annual report, which issue is the low standard of medical education. My strictures on certain Medical Colleges, and my condemnation of quacks, he calls a "a crusade upon the profession." He is well aware that I never published a line or syllable derogatory to the Medical Profession, but by this misrepresentation he hopes to kindle a prejudice against me and at the same time divert attention from the shortcomings of the Colleges.

Again in proving that the State Board examined less men, by far, than the number assumed by Dr. H. as the basis of his mathematical demonstration, I stated that many contract doctors, and others serving as stewards, obtained medical commission in the field, without undergoing an examination *by the State Board*. In opposition to this the Doctor says "that during the existence of the first and second Boards, every such one was examined, without exception, and the law requiring examination previous to commissioning was so imperative that *we would not hesitate to guarantee* that the subsequent Boards required it without exception." Mark, he does not say or guarantee that every such one was examined *by the State Board*. That is the impression he designs to convey, but the foxy gentleman leaves himself a hole to creep out at. And he needs it for the record of approved candidates in the Surgeon General's office shows that many were commissioned who were not required to go before the State Board. They were examined in the field by Medical Directors and temporary Field Boards. I very well remember, while Medical Director at Gallatin, Tenn., to have myself organized a temporary Board of Examiners by authority of Governor Tod.

In my last letter I referred to the system of re-examinations practiced by the Board, to show that it was not impossible for it to have rejected 80 per cent. at each session, and to have approved 600 candidates during the war.

In reply the Doctor says "a greater or less number of these (the successful candidates) were approved on a *first*, *second*, or *perhaps rarely* a *third* examination." In his first communication (see page 257 of this Journal) he makes the following declaration in regard to the candidates: "*Many* of those who were not successful with the first and second, applied to subsequent Boards." We have often heard of Jupiter nodding, but it is "perhaps rarely" that we can catch a fox napping so soundly as the Professor must have been doing when he penned this flagrant contradiction.

He attempts to be waggish over the mode in which the aggregate of Ohio medical officers is presented in my report, and he introduces his favorite fox to prove, by the wag of its tail, that my method is absurd.

It will probably surprise the Doctor to learn that my method is identical with that practiced by the Adjutant General of the army, and that it is the only method by which the strength of the army could be fairly represented. In the grand aggregate of the army, hundreds of men are counted four or five times. On one roll they count as private soldiers, on another as lieutenants, on another as captains, colonels, etc. The rule is to count a man, in the aggregate, as often as he is commissioned.

But I am trespassing on your valuable space, by dwelling on these illustrations of the Professor's tactics—such tactics belong to the demagogue and pettifogger, and should have no place in the discussions of professional men.

In conclusion permit me to express my regret that Dr. H. has not been able to tell us how many candidates were rejected by the Army State Board. If the number is less than I have represented, I wish the public to know it, and I will cheerfully correct my mistake. Whatever may have been the number rejected, we all know that there is need of reform, need that a higher standard of qualification be adopted by the Colleges.

At its meeting in May last, the National Medical Association proclaimed the urgent need of reform in our system of Medical Education by passing a resolution recommending all Colleges in the United States, to require of every student, applying for matriculation, evidence that he has a thorough knowledge of the common English branches of education, including first series of mathematics, elements of natural science and a sufficient knowledge of Latin and Greek to understand the technical terms of the profession. Also, that the student shall study four full years, including three regular annual courses of Medical College instruction, before being admitted to an examination for the degree of M. D. Also, that the annual lecture term shall consist of not less than six months, and that no medical school shall have less than nine professors.

These recommendations were prepared by a committee of eminent medical teachers, one of whom in reporting the proceedings expressed in this Journal the hope "that the profession throughout the country would unite in demanding of the Colleges the great reform which by all is admitted to be so much needed."

If these recommendations are faithfully complied with, the science of Medicine will ere long assume its proper rank among the learned professions, and in the event of another war there would be no difficulty in

finding competent surgeons for the service. A few months will test the devotion of the colleges to the interests of the profession and of humanity.

C. McDERMONT.

DAYTON, September, 1867.

Food for Babies.—Happy is the babe who, born of robust parents, sucks its entire nourishment for some weeks from the balmy bosom of its mother! But forasmuch as many women can not suckle at all, and very few can do so entirely, or are justified in attempting it, some artificial food is necessary; and as no one kind of food will suit all babies, the young practitioner is wise who keeps a good long list at the tip of his tongue.

Let us say, though, that any milkless mother who has a delicate baby to bring up, will do well to secure for it what some would call the hireling bosom of a fallen woman, but what, in more charitable language, may be called the services of some stout young countrywoman who has been a little too much in a hurry, and has had her baby before her wedding ring. By this arrangement three lives are saved. The nurseling is saved from death by inanition; the wetnurse recovers her "character," and gets a fresh start in life; and she need not drown or starve her own baby.

But where a wetnurse is not thought necessary, or can not be had, we fall back upon animal milk, with or without vegetable preparations—whether of cereal grain or of separated starch, or of flour treated by malt to insure the conversion of the starch into sugar.

Of milk, we have that of the ass, goat and cow. Asses' milk is, by general consent, the best substitute for the woman's for most delicate children; and, dear as it is, it is well worth the money. The goat's is a rich milk with a strong curd, and only adapted for robust children. The milk of the cow is, of course, the staple. And whilst for general purposes it is quite right that milk should be brought from any distant part of the country, it must be confessed that a few cows should be kept in town in hot weather, that their milk may reach the baby part of the population fresh, unshaken, and just as yielded by the animal. But cows' milk is too rich in curd for the human baby, whose muscular movements are almost confined to breathing, crying, and the heart's action. So it must be thinned, and the simplest way is the common one of adding an equal part of water (the water being gradually diminished as the child grows older) and a small quantity of white sugar. It is a refinement to use the sugar of milk, instead of common cane sugar, but whether there is anything gained we never could satisfy ourselves.

The test of any kind of baby's food is found in the fact that the child thrives—that it is satisfied after its meals, not subject to pains in the stomach and flatulence, nor yet to fits of colic in the bowels—and that the residuum, which is generally produced on a napkin for inspection, does not show undigested food. All these things are self-evident. A child ought regularly to grow, to be plump, and to gain in weight every week, and if it do not, something is wrong. Secondly, the child ought to be satisfied and go to sleep after its food; but here the junior practitioner ought to be aware of one physiological fact—when a child is in pain in the abdominal organs, it often displays insatiable hunger, has a tendency

to suck greedily, and this though the stomach and bowels may be loaded with undigested food. Ignorant nurses kill many a child by inattention to this point. The child cries after food; therefore they say the food is not good enough, "the milk does not satisfy," etc., and forthwith they give the child some half-solid pap, and dose the mother with over-rich food and alcohol. A purgative dose of oil is the best remedy when a baby is unreasonably hungry after food; castor oil is generally used, but any oil or soft fat will answer the purpose. The old custom of giving a bit of the fat of pig is founded on reason and experience. Lastly, the practical fact remains that no undigested food ought to be found in a baby's napkin. Any mother may be taught that lumps of curd and undigested starch can give the child no nourishment, but decompose in the bowels. and cause first pain, next diarrhœa. A healthy baby's napkin should not be offensive—of course, it has a faint peculiar odor, but certainly it does not stink, and if it do. either improper food has been given, or proper food has not been digested.

In other cases, in order to diminish the portion of curd, it is useful to give *cream* diluted with new milk and water; and, to prevent the curd of cows' milk from coalescing into hard lumps in the stomach and passing undigested, the milk may not only be diluted with water, but with effervescing soda-water (this is called artificial asses' milk) or potass-water or lime-water. Sometimes a very little of the solution of magnesia is added.

But this purpose (*i. e.*, the making the curd softer and more digestible) is generally effected by mixing it with cereal food or the starches. Theoretically speaking, we do not want the nitrogenous elements of the cereals, because the cow's milk contains enough of them. Hence arrowroot or sago may suffice, if it be understood that the child is to live upon the milk, and that these starchy elements are superadded to modify the milk, and not to be substitutes for it. Still, general experience is in favor of some cereal. Barley water, made from pearl barley, and mixed with an equal part of milk, is an admirable food for most children. Robinson's patent barley deserves praise. Oatmeal gruel and milk agrees with the robust. Brown and Polson's preparation of maize, and the maizena, seem favorite preparations. On the whole, however, wheat tends to displace the other cereals. The flour of wheat is often baked or boiled, and when so cooked is boiled afresh with water and milk. Or it is made into biscuits, of which Robb's, Lemann's, the Norwich knobs, "tops and bottoms," and rusks, are popular samples; or into a farinaceous food—that is, powder composed of wheat flour, or biscuit, with or without admixture of other cereals, and already acted on by heat, so as to require little or no cooking (Hard's, Neave's, etc., etc.).

This is the place to notice "Liebig's soup," a compound of milk, wheaten flour and malt, with a small quantity of bicarbonate of potass. The object of the malt is to convert the starch of the wheat into sugar, and so to save the stomach the trouble of that process; whilst the cow's milk is enriched with the phosphates of the wheat and the added alkâli. The thanks of society at large are due to Liebig, not only for the care and patience with which he has worked this idea out, and the liberality with which he published it, but likewise for the impetus which it has given to the study of the whole subject of infant food in connection with mortality.

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As for results. We believe that of any six infants one would refuse to swallow it; one would take it without benefit; but that the remaining two-thirds would take it greedily and thrive on it. We have known it to put a stop to so many of the miseries arising from undigested or indigestible food, that it has, we think, already earned for itself a permanent place. What form of it will ultimately be the favorite, is another question.

The objection to Liebig's food in its common form are, first, the time, trouble and nicety—it can not be prepared in less than twenty minutes, and not every nursemaid or mother has the intelligence sufficient. Secondly, there is the considerable amount of indigestible husk, often very difficult to separate by straining, and consisting of spicula that look very formidable to any tender mucous membrane. Thirdly, as a theoretical objection, we mention its too saccharine nature and the absence of fat.

The first objection has been met by Savory and Moore, who have put together and prepared the ingredients in such a way that they only need the addition of water and milk, and no straining nor boiling. We can tell, from our own experience, that this preparation, once tried, becomes a favorite in the nursery, and that children thrive well on it.

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We have now, we trust, set forth a pretty general view of infants' food, and shall add but three or four practical hints: 1. The advantage of adding cream from time to time, especially if the baby is constipated. Want of fat is the cardinal defect in Liebig's soup. 2. The expediency of adding a small quantity of some aromatic water to all infants' food, such as dill, anise, etc. There is a very popular food in some counties, consisting of equal parts of barley water and milk with one teaspoonful of good brandy to the pint. Bad for the babies' livers, some would say; but no harm is found in practice. 3. The expediency of giving delicate children small quantities of gravy or beef-tea sweetened, or a few grains of raw meat ground to a pulp. If these agree, a child is almost safe. 4. No one kind of food can agree with all children. It has provoked us to see children dying on a diet which did not suit them, without an effort to shift and combine various elements till the right thing could be found. 5. The importance of teaching the poor that food for babies should be *thin*, and that a thin food may be more nutritious than a thick one.—*From an Editorial in Medical Times and Gazette, London, August* 24.

Gibbon's Hydrocele.—Astley Cooper, while an apprentice, was present at Gibbon's autopsy, and has left us an account of it. The great historian was found to be the subject of an extraordinary scrotal hernia. The term extraordinary can not be regarded as misapplied when it is recollected that almost the whole of the intestines capable of displacement had quitted the cavity of the abdomen, the pylorus itself having descended as far as the orifice of the hernial sac, and the ring being wide enough to admit the hand. Below the sac there existed a distinct cavity, capable of containing several pints of serosity, and reaching within an inch of the knee. This example of hydrocele appended to a hernia is, however, almost as nothing compared with a case met with by M. Bouisson, of Montpellier, in a man 52 years of age. It may be described as

having the appearance of a second abdomen appended to the ordinary one. This supplementary abdomen is 50 centimetres long, and measures 1 metre 80 c. in circumference, having the volume of a large gourd, and descends lower than the knees. Its upper half is evidently occupied by the whole mass of intestines and omentum, and its lower portion by a serous collection. A first puncture, February, 1866, discharged 16 litres of liquid; and a second, in December, furnished 26 litres. To this combination of voluminous hernia with hydrocele, M. Bouisson proposes to give the name of "Gibbon's Hydrocele." What will the manes of the illustrious author of the "Decline and Fall" think of this?—*Union M'd.* No. 31.

Treatment of Whitlow at Middlesex Hospital.—Amongst the out-patients of the Middlesex Hospital, Mr. Lawson has remarked that the frequency of whitlow varies considerably. At one period of the year the disease may be of frequent occurrence, whilst at another it may be comparatively rare. In speaking of whitlow, it is the deep or severe form to which he refers: the treatment of a superficial whitlow is self-evident. The causes which produce whitlow may be local or constitutional; but the majority of cases are due to the latter. A slight injury, such as a scratch or a prick with a rusty nail, may have been the immediate excitant; but had the health of the patient been good at the time of the accident, the probability is that no severe after-effects would have followed. At certain times when boils are prevalent, and the tendency of disease is to assume a low type, whitlows are common in the out-patient rooms of the hospitals. They should always be regarded as evidences of low power, and in considering the treatment of them this fact should be borne in mind.

When a whitlow threatens, the patient should, if possible, strike work, and a purgative should be given to clear the bowels of all irritating matter, as a preliminary to the tonic treatment which is to follow. The mineral acids with bark nearly always do good; or their use may be preceded by diffusible stimulants, such as ammonia and chloric ether. Depressants are uncalled for and will probably do harm. Warmth should be applied to the finger by linseed-meal poultices, changed two or three times a day; and with each change of the poultice, the part should be soaked for at least a quarter of an hour in hot water. The warmth is grateful to the patient and generally does good.

The most important points, however, in the treatment of whitlow are: 1st, to ascertain when pus has been formed; and 2d, to give vent to it by a free incision.

The sense of fluctuation, which is usually one of the prominent symptoms of the presence of pus, cannot be appreciated when the matter is in the extremity of the finger or thumb. The natural elasticity of the part is so deceptive that it may be easily mistaken for fluctuation. The only reliable guides for determination of the existence of pus in cases of whitlow are tension and pain. The cushion of the finger or thumb becomes hot and swollen, more or less tense, and exquisitely painful. The slightest touch aggravates the pain, which is of a throbbing character, and so severe as to destroy sleep. Such symptoms are diagnostic of pus, and a free opening should at once be made to give vent to it. The incision should be in the mesial line of the palmar surface of the finger or thumb,

and of a sufficient length and depth to give a free escape to the pus. A warm linseed-meal poultice should then be applied, and the fomentations with hot water repeated from time to time.

Much might be said about the neglected whitlows which are often met with amongst the out-patients. The suppuration has been allowed to go on undisturbed; and no exit for the pus having been made, it either works its way to the surface by progressive ulceration, or it burrows beneath the palmar surface of the finger and thumb, in some instances extending into the palm of the hand. Even when the pus makes its way to the surface, there is always considerable destruction of the overlaying tissues, and very frequently necrosis of the last phalanx. In treating such cases it is advisable to save the nail, and as much as possible of the end of the finger or thumb. By waiting patiently the necrosed bone will become loosened from its attachments, and it may generally in the end be lifted away with a pair of forceps, and a very useful finger will be the result. Amputation should not be performed simply because the last phalanx is necrosed. It can always be resorted to after the other plan of treatment has been tried and failed. There are, however, cases of neglected whitlow in which amputation of the finger or thumb is the only treatment which can be rightly pursued; but these must be regarded as rather exceptional.—*Lancet, August* 31.

OBITUARY.

Dr. W. B. Costello.

This gentleman died in Paris a few days ago, in his sixty-eighth year. He was born near Dublin, received his education in that city, and established himself in London about thirty-five years since as a consulting surgeon, and lived for some years in Breeton-street, Bond-street.

He was not, however, successful, and subsequently became medical superintendent of Wyke-house Asylum, near Isleworth.

For many of the last years of his life he resided in Paris, and devoted himself chiefly to literature. The small practice he had in this metropolis was devoted chiefly to cases of stone, and he practised and advocated lithotrity at a time when such advocacy was required for the success of the operation.

When in London, Dr. Costello was a frequent visitor at the medical societies, particularly the Westminister. He was a frequent speaker, and gave evidence of being a man well acquainted with the literature of the profession. Some years since he published "A Cyclopædia of Practical Surgery," a ponderous but learned work.—*London Lancet, Aug.* 31, 1867.

Dr. James Jackson, of Boston, Mass.—The Boston papers announce the death of this physician as having occurred August 27th, at the age of ninety years. Dr. Jackson was a native of Newburyport, Mass., where he was born on October 3, 1777. In 1796 he graduated at Harvard College, and in 1802 was admitted to the Massachusetts Medical Society. He soon won a high position in his profession, and in 1812 became Professor of the Theory and Practice of Medicine in the Harvard Medical School, which position he held for twenty-four years. He was also one of the founders and physicians of the Massachusetts' General

Hospital, and was elected President of the Medical Society several times. About eighteen months ago his faculties suddenly failed, and thenceforward his physical powers gradually declined. His death appeared to have been more from old age than from any local disease.—*Medical Record, September 16th*, 1867.

EDITORIAL AND MEDICAL NEWS.

October marks the exodus of students from their homes to the various medical colleges, north and south, east and west. Probably we are quite within the bounds of truth in asserting that this autumn and winter will find some seven or eight thousand young men, ambitious aspirants for the doctorate, attending "Lectures."

Our Journal has among its readers not a few of this class of individuals—a fact for which we are grateful—and the present seems to us an auspicious time to say some words directly and solely to medical students.

We proffer no advice as to the selection of places, or of schools; not one of the latter is *the* school, not one of the former can claim *all* the professional talent and clinical facilities of our vast country with its many thronged cities: "college circulars" glorify the respective schools from which they emanate—their buildings, their museums, hospitals, apparatus, etc., and the ability of their teachers—quite well enough, so that a medical journal need never degenerate into a puffing machine.

But medical students should bear this in mind, however: It is not the school, nor the men who teach, that should be regarded as most important in determining whether you shall be indeed physicians, or shams; it is not the opportunities, limited or extensive as these may be, but the wise use of them that settles this question. And when a man offers himself to the public in the capacity of a physician, and when he associates with other physicians claiming peership, where he graduated, and whose names are attached to his diploma, are minor matters in comparison with the great question, what is he? We seriously doubt whether there is in general very much difference in the value of the diplomas of most of our various medical institutions, as proofs of professional qualification. The *Matres Medicorum* of our country are remarkable for their brief term of pregnancy, and for the facility with which parturition takes place; in some rare instances the fœtal M. D., is not strong enough to be thrust upon the world when he desires to be, and sorely tried by questions he can not answer, a sort of *cephalic version* is performed, and delivery postponed six months or a year: but these are exceptions, and the vast majority of

those who offer themselves as candidates for graduation do not find themselves in a "strait" which they can not "pass."

An effort has recently been inaugurated by some of the most intelligent and skillful accoucheurs to induce these prolific mothers to prolong their period of utero-gestation—making it four years instead of two or two and a half, as it often now is—but earnestly as we wish this reform, we dare not hope to see it succeed for some time; at any rate the gentlemen now attending medical lectures, need not fear any delay from this source, in their entrance upon professional life.

Nevertheless we wish we could impress upon them the very serious error, an error which they will many a time in future years bitterly repent, of hurrying through their medical pupilage. Four or five years of study, including at least three full courses in medical colleges, is a brief enough time for the vast majority of men to prepare themselves for professional responsibilities. But in this fast age he who attempts to put a drag upon the swiftly whirling wheels, labors vainly, if not to his own hurt,

We can assure students still more, that wherever they may go, for five or six months, they will have more work than they can do well—more aliment offered them than they can thoroughly digest, and completely assimilate, and *mental dyspepsia* with subsequent *professional marasmus* sometimes results from our system of cramming. How are such consequences to be guarded against?

The student must bear in mind that his chief aim is to qualify himself to be a physician, not to "pass"; if the first object is attained, the second is inevitably certain; let a man be prepared for his practical work, and rejection is impossible, and the ordeal of the "green-room" a very clumsy scarecrow. In his collegiate course let him discriminate as to time and attention, in favor of such subjects as he can not well study at home in the recess, or such as lie at the basis of professional knowledge, or such as have directly or remotely the greatest practical value. For example, Anatomy, the foundation of eminence as surgeon or physician, he can acquire a knowledge of no where else half so well, if at all, as at a medical school: neglect, therefore, no anatomical lectures and readings, and be faithful in the dissecting room. Next we would place Clinical Medicine, Surgery and Obstetrics; let him familiarize himself at hospital and college clinics with the physiognomy, the pathology and the diagnosis of special diseases, with the detection of surgical injuries and maladies, and with the operative procedures they require; and let him as occasion offers study the natural history of parturition.

And here we beg leave to say, that a few cases well studied are better

than a thousand of which only a smattering knowledge, if any at all, can be acquired: confusion worse confounded often results from the vain attempts to see too much; there is a limit to each man's receptive power, and a vast variety and number of objects may sometimes be worse than none at all.

But we have not time to enlarge upon these points, and we hasten on to speak briefly but earnestly, and we hope usefully, upon some special perils which may environ the medical student.

The students of medicine as a class do not boast plethoric pocket-books—they have no money to throw away—and therefore the more need for a rigid economy, cast as they are in the midst of so many temptations to financial extravagance. But let the economy be in clothing, in the so-called recreations and amusements, rather than in the facilities for obtaining knowledge. Buy such useful books and illustrations as you can, even if your coat should be somewhat thread-bare and your hat not in the latest style: a gentleman will never estimate you by your dress, and the good opinion of those who do thus judge men is not worth having, and years hence you will be glad that you put into your head that which you saved from its exterior, and into your library that which you kept from your back.

What shall we say of other temptations to spend money save on personal apparel—what shall we say of the innumerable dens of vice which in all our large cities open wide their doors to entice the unwary to their ruin? If we believed no young man in any of our medical schools would set foot in such places, nay, if we did not know that some at least would be led thither, planting it may be in both soul and body, the seeds of moral and physical disease, then we would gladly be silent.

Is there no danger to any of them from seeking the pleasures that sparkle in the wine-cup, no peril in the consequent habit which may be formed, no mischief present and prospective too, in alcoholic potations? For the student's work these indulgences are needless and injurious. Alcoholic beverages never gave profounder thought, clearer comprehension, and greater mental endurance; they never made the heart braver and stronger for the real struggles and burdens of life. Trace their injurious influence,* when habitually indulged in, upon both the animal and the or-

* Those who are interested in the scientific study of the action of Alcohol upon man, will find an admirable discussion of the subject by Alfred Fournier in the *Nouveau Dictionnaire de Me decine et de Chirurgie Pratiques, Tome premier:* it is free from that suspicion which, in our mind at least, often attaches to the prize essays and other paid performances, gotten up directly the demand of temperance organizations, that the author or authors may be trying to make out a strong case.

ganic life—scarcely an important function or organ of the whole body that they do not lay their curse upon—motility, sensibility, the special senses, the intellect, the stomach, the intestines, the liver, the kidneys, the heart, the arteries and the veins, the very blood itself changed in character, all speak with no ambiguous voice in protest against such indulgence. Physicians knowing all these things, should be the foremost men in endeavoring, both by precept and example, to check the tide of intemperance which every year engulfs so many thousands. And medical students, the coming physicians, would secure for themselves high vantage ground for future efforts in this needed reform, by sacredly resolving that save for medicinal purposes, no drop of alcohol shall ever touch their lips. Another argument for such abstinence, but based upon purely selfish, as the former was on philanthropic considerations. By and by, when out in practice, especially if successful, they will find themselves the objects now and then of slanderous and injurious reports; the people generally and justly, regarding with serious distrust a "drunken doctor," the charge of intemperance is that which is oftenest bruited about by some malignant moral assassin; but he who is clad in the panoply we advise, may laugh these poisoned arrows to scorn.

There is another peril in regard to which we can not be silent. In your next hospital visit examine some of the poor victims of syphilis; see the frightful and various ravages of the remorseless poison, a poison which once introduced into the system, in many instances is never entirely eradicated, is communicated from husband to wife, from sire to son or daughter; and by this knowledge, by the memory of pure hearted mother, and virtuous sister, and it may be of one of the same sex more loved than either, restrain the ardent passions of youthful blood. Shun as you would the commission of capital crime, a companion whose thoughts are constantly gloating upon sensual images, and the chambers of whose mind are a seraglio of imagined lust, who would inflame your heart with salacious ardors, or who would habitually and persistently tempt you with intoxicating drinks;

> "Arise and fly
> The reeling Faun, the sensual feast—
> Move upward, working out the beast;—"

turn away from the home of her who, the hapless victim of another's cruel and irreparable crime, sells her body for hire, for the dead are there and her guests are in the depths of hell. And every victory of this sort, each triumph over temptation will make you a stronger, better, purer, nobler man—

"Who reigns within himself, and rules
Passions, desires and fears, is more than king"—

and in these regards better fitted for the Profession to which you aspire, and whose duties are best discharged in the fear of God and in the love of man.

CHEAP SCIENCE.—We recently noticed the advertisements of two medical colleges. Each school has eight or ten professors and teachers. They each propose a course of five months, giving as many lectures each day as the students can listen to with profit. For this they propose to charge FORTY DOLLARS.

Our first thought was, that this is *fraudulently* cheap. But we must not judge. These are all experienced teachers. Some of them have been teaching these many years. They ought, by this time, to know what their services are worth. They once charged higher than this; and if they found, by experience an i observation, that the fees were too high for the services, it was their duty to lower them. But, as "time is money," can students afford to spend five precious months in listening to instructions worth but eight dollars a month, though imparted by half a score of men? Either these men have undervalued their teachings, or students who attend on them undervalue their time.

But these teachers may suggest that we attend to our own business; which is just what we are doing. Educators can not belittle their calling, without doing injustice to other educators.

"But dwellers in glass houses must not throw stones." We have recently heard of a Dental college proposing to give a student a course, and let him pay for it after he earns the money by practice. Whether or not he is to "board around" with the professors, during the session, on the same terms, we have not learned, but presume he is, as they are generous fellows, and do not profess to do things by halves.—*Dental Register, Aug.* 1867.

We take for granted that the "two Medical Colleges" alluded to, are the "Ohio" and the "Miami;" and we frankly admit that there is some ground for this sharp criticism. And yet are these colleges sinners above others? Let the critic examine the circulars of the Cincinnati College of Medicine and Surgery, of the Cleveland and of the Chicago schools, of the Kentucky School of Medicine, of Starling Medical College, above all of the Medical Department of Michigan University, to learn how cheaply medical instruction is furnished.

Now are Cincinnati teachers of medicine to drive away by high fees the hundreds of students who would otherwise naturally go there, as the oldest and most famous center of medical instruction in the west, and then enjoy the great dignity of lecturing to empty benches? For unto this complexion it comes at last. We do not believe that any material advance

can be made in lecture fees in Cincinnati, at any rate not such an advance as would make them the same as those of the New York and Philadelphia schools, without turning away to Ann Arbor, Chicago, Columbus, or Cleveland, at least one-half of those who otherwise would seek their medical instruction in that city.

The intrinsic value and the commercial value are often very different things—they ought to correspond—but while they do not, men's actions should be shaped accordingly.

And yet it might possibly occur to the critic's mind, that peradventure medical teaching, like medical practice, is not always a commercial matter—men may be lecturers in medical colleges without any desire or expectation of pecuniary gain. Higher than any pecuniary profit are the growth, the culture and the honor that a man may have who industriously and faithfully teaches his fellow men. Higher than this again, is the usefulness of such an avocation; the teacher, above all the teacher of the noblest of earthly arts, he who fits men to cure or prevent disease, instructs them in the means of removing human suffering, of lightening and lengthening human existence, is doing a work the value of which can not be estimated in dollars and cents, and for which he finds his highest compensation in the consciousness of doing good.

We frankly admit that the fees in Cincinnati are not what they ought to be, and that every one of her qualified, earnest and honest medical teachers should be better paid, and that these low fees there depend partly upon local causes, some of which are not altogether creditable. And yet, after all these admissions, we do not see how the case can be altered at present; and we do protest against the dilemma presented—"Either these men have undervalued their teachings, or students who attend on them undervalue their time"—as exceedingly bad logic, for neither the one nor the other alternative is necessarily true.

Correction.—Dr. Whittaker requests the following insertion: The names of attending physicians Drs. Jno. A. Murphy and H. E. Foote were inadvertently omitted in the report on Belladonna in Incontinence of Urine, in the August number.

Cincinnati Hospital Changes.—Dr. Lewis A. Querner has resigned his position of Resident Physician at the Hospital of the Good Samaritan. Dr. Thomas C. Minor has been appointed to fill the vacancy.

Professors Bartholow and Seely have recently been added to the Staff of the Commercial Hospital—the former in the position of Patholcgist, and the latter in that of Oculist.

THE LAST WORDS OF VELPEAU, and they are worthy to be remembered by every physician, were "*Il faut toujours travailler, mes amis.*"

THE MEDICAL SOCIETY of West Virginia will hold its first semi-annual session in the Hall of the House of Delegates, Wheeling, Tuesday October 2nd.

AWARDS AT PARIS EXHIBITION.—Prof. Hyrtl, of Vienna, received a gold medal, at the last Paris exhibition, for his anatomical preparations, and Prof. Trichmann, of Cracow, the bronze for the same. Dr. Politzer, of Vienna, received an "honorable mention."

WE ARE GLAD to receive the *Humboldt Medical Archives*, edited by Drs. Hammer and M. A. Pallen, of St. Louis. The editorial contributions especially give promise of a higher style of periodical medical literature, than some of the dreary platitudes and chaffy inanities of medical authorship which now and again find their way into print.

LOSS OF MEMORY FROM SYPHILIS.—Dr. Cerasi states, in the *Medical Journal* of Rome, that a married lady of 38 years applied to several medical men on account of flagging intellect and loss of memory. After she had undergone several modes of treatment without avail, and homœopathy had also failed, she came under the care of Dr. Cerasi, who, from various symptoms suspected syphilis. He instituted a treatment with iodide of potassium and mercurial friction, and obtained, in two months and a half, a complete cure.

FARADAY AS A LECTURER.—From a recent English paper we extract the following in reference to Michael Faraday, one of the most distinguished philosophers of our age, who died August 25, in the 76th year of his age:

"As a lecturer on science," writes one who knew him well, "Faraday was without his equal. At the table in the theatre of the Royal Institution, with his beautifully devised apparatus around him, he was perfectly at home and at ease. The first words which fell from his lips conveyed to all an impression of thorough earnestness, an intense desire to know and to impart to others his knowledge of—the truth. You felt that you were in the presence of a guide of the highest order, with whom you might go forward without fear of being led into error. Nothing but the truth could fall from his lips. Every truth would be made as clear as it was possible for a man to make it within the limits of an hour, and with the limited resources of the lecture-table."

Faraday's language, it may be added without fear of contradiction, was always simple, and the only poetry in which he ever indulged was the earnest expression given to some of those great truths of which he was the discoverer. He sought to reach the mind of every hearer through more senses than one. He never *told* his listeners of an experiment; he

always *showed* it to them, however simple and well known it might be. "If," said Faraday once to a young lecturer, "I said to my audience, 'This stone will fall to the ground if I open my hand,' I should not be content with saying the words; I should open my hand and let it fall. Take nothing for granted as known. Inform the eye at the same time that you address the ear." And this was the great secret of Faraday's success. Every one left the theatre of the institution in Albemarle street satisfied that he had really acquired some useful knowledge, and that he had gained it pleasantly and without toil or labor.

PROF. N. S. DAVIS publishes, in the *Chicago Medical Examiner*, September, a paper read by him before the Illinois State Medical Society, entitled "*Experimental Inquiries Concerning the Physiological effects of Alcoholic Drinks on Man.*" The chief interest of the paper is in the *sphygmographic* investigations made by Dr. Davis, to test the influence of an alcoholic stimulant upon the pulse wave. The paper concludes thus:

Although the inferences to be drawn from the sphygmographic pulse lines as connected with different physiological and pathological conditions of the human system are yet imperfectly understood, yet so far as observations have been made, the lines in the accompanying d agram indicate retarded movement of the blood in the capillaries, and consequent increas d suddenness of expansion and contraction of the arterial trunks by the impulse of the heart. If this inference be correct, then we may sum up the results of the varied and ingenious experiments in reference to the effects of alcohol on the human system, many of which have been performed both in this country and Europe, in the two following propositiens:

First. Its presence in the blood directly interferes with the normal play of vital affinities and cell action in such a manner as to diminish the rapidity of nutrition and disintegration, and consequently to diminish the dependent functions of elimination, calorification, and innervation; thereby making alcohol a positive organic sedative, instead of a diffusible stimulant, as is popularly supposed both in and out of the profession.

Second. That alcohol itself acts in the system exclusively as a foreign substance incapable of assimilation or decomposition by the vital functions, and is ultimately excreted or eliminated without chemical change.

The important bearing of these conclusions on the therapeutic and hygienic uses of alcoholic drinks must be obvious to all, and especially demand the careful attention of every member of our profession.

DUST AND DISEASE.—The recent analyses of Mr. Titchborne, of Dublin, and Dr. Letheby, show that street dust contains, besides its inorganic constituents, no less than from 24 to 30 per cent. of organic matter, chiefly from the excreta which fall upon the thoroughfares. This state of things probably operates in the extension of hu ..an epidemics, especially diarrhœa; but certainly such dust blown upon the mucous surfaces of the eyes, mouth, and nostrils of cattle, is a means of extending epizootic infections.

ERRATUM.—By a strange oversight, M. D., has been left off from S. LITTELL, page 585.